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ORIGINAL ARTICLES.

THE RESULTS OF THE OPERATION FOR CONVERGENT SQUINT.¹

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A RECENT English review of a work upon political economy remarks, "To our ideas, a State without statistics is almost as inconceivable as a mercantile or banking establishment without accounts."

I think we shall all agree that it would not be an overestimate of the value of statistics in our science and art, if we applied this statement of the critic to ourselves. In surgery, at least, we can hardly come to any very definite and positive conclusions as to the results of a given operation, unless the statistics of a sufficient number of cases have been carefully considered. And this is also true as to the course of any disease, or the effects of any drug. Impressions, however distinct, are not to be weighed against judicial conclusions formed from the study of a series of cases. Nor does an isolated case, however carefully observed, prove very much. Nowhere better than in medical science is the truth of the homely proverb exemplified, "It takes more than one swallow to make a spring."

It is, I think, owing to the lack of tables showing the results of a large number of cases, that the results of the common operation for convergent squint seem by a few authorities to be still an open question. About twenty-five years ago, Mr. J. W. Hulke² said that he was asked by an old ophthalmic surgeon of great reputation, "What do you honestly think of the operation for squint?" and he stated that a strong reaction still lingered against the division of the recti muscles. In order to do something to correct what Mr. Hulke evidently considered a prejudice against a useful and generally successful operation, he analyzed one hundred cases of convergent squint of which he has preserved the notes.

In 1867 Dr. D. Little³ reported sixty-two cases of convergent squint, operated on by Mr. Thomas Windsor in the Manchester Eye Hospital.

In 1870 Mr. W. Spencer Watson,⁴ in an article read before the Medical Society of London, inquires into "the causes of the occasional failure of the operation for squint," and gives an analysis of 99 cases of convergent strabismus. These tables all show a satisfactory percentage of cures. Mr. Hulke believes that the "removal of all disfigurement" was accom-

plished in 87 per cent. of his cases. Mr. Windsor's statistics show that more than 79 per cent. of his cases were completely successful. This proportion would have been larger had the patients been willing to submit to a second operation. Mr. Watson considers that he had a successful result in 73 per cent. of his cases, a partially successful in 12, and a slight improvement in 4, total 89 per cent. of cure or improvement.

It is now forty-five years since the operation of division of the recti interni muscles was first performed for the cure of convergent squint, and the general literature has been *nil*. There has been, however, very little tabulation of the results as to the removal of the deformity, and the restoration of the vision of the squinting eye. It was at one time quite generally believed that the loss of vision was caused by the deviation of the optic axis, and that vision could be restored if the patient was operated upon at a sufficiently early period. Schweigger's excellent monograph,¹ however, took up the question of improvement of vision after the operation, seriously, and pronounced it a myth, in spite of the isolated cases by excellent authorities that had been here and there reported, for example, by Steffan² and Knapp,³ but even Schweigger does not furnish us with a general table of the results of the operation. The monograph is, however, rich in many details, and boldly opposes Graefe's view that there was such a thing as amblyopia from disuse of the eyes, which an early operation might avert. I believe that Schweigger's work has not yet been translated into English. Were it more generally accessible, I think the profession would soon be convinced of the incorrectness of the theory of an *amblyopia ex anopsia*. Certainly this would be so, did surgeons compile and study their own cases of squint.

From what I have heard of late, among experts in ophthalmology, general practitioners, and the laity, I suspect that the opinions as to the beneficial results of an operation for convergent squint are by no means as unanimous as they are, for example, as to the results of the operation for cataract. I find that it is still taught by some, that the vision of the squinting eye is improved by an operation; by others, that paralysis of accommodation by atropia will often do away with the necessity for an operation (Boucheron, John Green); by still another class, that the operation is performed too commonly, and should often be postponed, or even not performed at all; while Dr. Loring lately told me that he thought if there was anything we did know, it was how to cure convergent squint by an operation.

At the last meeting of the American Ophthalmological Society Dr. Seely (*Transactions*, p. 126) states

¹ Read Before the New York State Medical Society, February 2, 1886.

² Royal London Ophthalmic Hospital Reports, vol. iv. p. 158.

³ Ophthalmic Review, vol. iii. p. 148.

⁴ The Practitioner, London, vol. vi. p. 17.

¹ Klinische Untersuchungen über das Schielen, Berlin, 1881.

² Ophthalmic Review, vol. iii. p. 335.

³ Zehender's Monatsblätter, 1863, p. 475.

that: "Each year has strengthened the conviction that early operations (up to the twelfth or fifteenth year) are questionable, and should be entirely abandoned." On the other hand, Dr. Theobald, in the discussion upon this paper, states that there are few operations that he has found more satisfactory than tenotomy for convergent squint. So far as the discussion went, although it is fair to say that it was not participated in by many of the members of the Society, the impression is left upon my mind that at least some of these authorities are somewhat at sea on the subject of the results of the operation for convergent squint. Two of the members who participated in the discussion doubted the existence of loss of sight from disuse of the eye—*amblyopia ex anopsia*—a loss which was once generally thought to be recovered by an operation. Dr. Wadsworth, like Schweigger, is convinced that *amblyopia ex anopsia* is a myth.

A paper that gives no uncertain sound as to the value of the operation is that by Dr. Loring¹ published some thirteen years ago. Loring believes that it is true that "strabismus does sometimes disappear of itself, but it is an extremely rare occurrence, so rare, indeed, as to be the exception to prove the rule that it does not cure itself." After alluding to the want of unanimity of opinion among authorities as to the time for operation, Loring goes on to say that he is decidedly of the opinion that the cases in which the operation should be deferred to a comparatively remote period, are few in proportion to those that should be operated upon as soon as seen. Loring, however, furnishes no statistics. They would have been a fitting termination of his suggestive and philosophic paper. Loring says, in this article, that "in certain cases when only one eye is habitually used, the vision deteriorates, so that the eye in a short time becomes useless." The mobility of the squinting eye outward, he also says, is greatly reduced. I think if Loring had tabulated his cases, and carefully investigated the subject of deterioration of vision, he would not have adopted Graef's views in this respect, but, like Schweigger, would even declare such a deterioration to be mythical, or doubtful at least.

Tables comprising a scant 300 cases, are certainly not enough to determine the results of the operation for strabismus. These are all I have been able to find after a careful search. It is in this lack of statistics, that is, I think, to be found that failure of ophthalmologists to formulate their views on this subject with general unanimity, and to settle the question as to whether vision is, or is not, deteriorated by the continuance of a squint, whether there is, or is not, an *amblyopia ex anopsia*. Certainly it is not from want of material that the statistics of the results of the operation for convergent strabismus are so meagre. It is one of the operations most frequently performed by oculists. One writer states that he has performed 3000 tenotomies,² and yet, so far as I am aware, no statistics as to the results of his operations have appeared in print, while the results of cataract extraction, and of iridectomy for glaucoma, have been presented to us in all the varied tables that skill can

suggest, and with the greatest advantage to our exact knowledge, so that discussions as to the general results or the utility of the operation are not even thought of. The important operation to relieve a very distressing deformity, a deformity which alters the whole character of the human face, remains as yet without sufficient data, in this country at least, to enable a body of experts to determine positively whether or not visual power is impaired by such a deviation of the axis of the eye, and such a displacement of the *macula lutea*, as results from squint, and members of this same body appear also to differ materially as to the value or propriety of an early operation. In view of the facts, I have been led to think that a table of the cases of strabismus convergens, in which the notes show the results of the operation of division of the internal rectus, would be of some value at least, and perhaps lead to the publication of others. To me, at any rate, they seem to be enough to prove one point, and for this reason I venture to publish them. Of the etiology of strabismus convergens I do not intend to speak with fulness, but I simply desire to indicate, so far as a hundred and eleven cases will show, what we may expect in the correction of the deformity, and in improvement of the vision of the deviating eye.

With a few exceptions, until the introduction of cocaine as a local anaesthetic, I have used ether for the purpose of procuring general anaesthesia during the operation. Occasionally I have operated without an anaesthetic. In later days I use cocaine in all self-contained subjects, young or old, and ether in children of a nervous or excitable temperament. I make cold water applications for some six hours, by means of pieces of cloth made cold by being laid upon a block of ice. No suture is applied to the conjunctival wound.

In making the table appended to this paper, all cases in which the result is not positively known have been rigorously excluded. Until the last few years, I have been unable to have proper notes taken of my hospital cases, so that I have been obliged to be satisfied with a report of the tenotomies, one hundred and sixty-eight in number performed upon one hundred persons. These, however, have been carefully observed so far as the results are concerned, although I regret that the data in some respects are very meagre. An analysis of the general table which is the conclusion of the paper, shows the following facts, one of them at least is well appreciated already, that is, the proportion of hypermetropia in strabismus convergence is very large—98 per cent. That I have found no emmetropic eyes, as Schweigger does, is to be explained by the fact that I have estimated the refraction while the patients' eyes were under the influence of atropia. When the ciliary muscle was completely paralyzed by atropia, in all my cases of convergent squint except in those that were myopic, I have always found that vision was clearer and in most instances markedly better with a convex glass. That there are eyes not myopic that never accept a convex glass, even when fully under the influence of atropia, I have long since shown¹ and this has been verified by another observer, Randall.² That there is an

¹ Transactions New York Academy of Medicine, 1874, p. 161.

² Knapp, Transactions American Ophthalmological Society, 1885, p. 37.

¹ Transactions American Ophthalmological Society, 1878.

² American Journal of the Medical Sciences, July, 1885, p. 147.

emmetropic eye, although it is an ideal one, I think is clearly shown by these observations, but as compared with hypermetropia or myopia, emmetropia is an exceedingly rare condition.

Even if we consider an eye emmetropic that accepts only a convex sixty after full paralysis of the ciliary muscles with atropia, it will be seen, by reference to the table, that there is very little of this kind of emmetropia in cases of convergent strabismus, the hypermetropia being usually as much as a $\frac{1}{4}$ th or more. Yet I think all experts have long since abandoned the belief that convergent strabismus is *chiefly* dependent upon hypermetropia. The short antero-posterior diameter of the eye is but one factor, if it be one at all, in the production of convergent squint. Else excluding the myopic, three-quarters or more of the human race would squint.

In the congenital amblyopia of one eye, which I believe is the general condition of patients with convergent strabismus, and the resultant loss of single vision with two eyes, is perhaps to be found the important fundamental condition for the production of convergent strabismus.

In two cases of myopia with convergent squint, the myopia was so considerable that the far point was at less than seven inches. Both of these cases occurred in females, and in both of them parallelism resulted from the operation. In the case of upward squint, which is still under observation, I propose to bring forward the inferior rectus and again divide the superior rectus. It is the only one of these cases in which the result is as yet entirely unsatisfactory, for in the cases of convergence still remaining, or in the cases of divergence, a simple remedy is still at hand. In the cases of convergence when but one muscle has been divided, I do not consider that the operation has been fairly tried, for I invariably inform my patients that from one to four operations will be required, and I only undertake cases when I am allowed to use my own judgment as to the propriety of a second or even third or fourth operation.

One of the most successful cases that I have ever operated upon, in point of correction of the deformity, and one which is not included in this table, was that of a young man of about thirty years of age, upon whom I performed successive operations, each time making a distinct gain; and I know this is not an entirely unusual experience among those who operate much for squint. The opponents of the operation for convergent strabismus assert that divergence very often results. I have not seen this in my own practice, nor in that of my colleagues and my friends in other institutions than that in which I am a surgeon. I see, however, many successful cases, of years' standing, among the patients who apply for correcting glasses at my clinic. The cases of divergence which I have seen and upon which I have operated have been usually, if not always, cases that came from the hands of travelling oculists without professional standing. The cases of slight divergence that now and then occur in the most experienced hands, may be usually corrected by division of the external rectus without advancement of the internus.

With Loring, and I believe in common with most

of the profession in our country, I think the best time for an operation is from five to seven years of age, when occupation with small objects and strain of the accommodation are about to begin. To operate earlier than this, is to lose the great advantage of assistance in correcting the squint that may remain after one or two tenotomies, by the means of convex glasses. As a rule, I advise that glasses be finally left off except for near work, in all cases where the manifest hypermetropia is not great, and when distant vision is not markedly improved by wearing them. Although I have faithfully tried the method of curing squint by the use of atropia and glasses, without operation, I have had no good results, and I have well-nigh abandoned it, although I attach much importance to the use of atropia and glasses after a partial result from a tenotomy.

I can only speak of the practice of allowing children to go from six or seven years of age to the period of puberty, to be jeered at by their thoughtless playmates, without correction of a squint, as being, in my opinion, indefensible and dangerous to the nature and development of the child thus neglected. That some children grow out of squint is, of course, not to be denied, but a few months of observation will determine which those are, and thus prevent an unnecessary operation.

REFRACTION OF THE EYES OPERATED UPON.

Hypermetropia in both eyes	78
Hypermetropia in one eye and hypermetropic astigmatism in the other	5
Hypermetropic astigmatism in both eyes	11
Hypermetropic astigmatism in one eye and myopic astigmatism in the other	1
Myopia in both eyes	2
Unrecorded	3
Total	100

VISION.

Visual power was found to be the same after the operations, glasses having been fitted under atropia in	17
Visual power was found to be increased, generally one eye only, with glasses under atropia	31
Unrecorded	52

Total	100
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VISION—continued.

TABLE SHOWING THE VISUAL POWER FOUND AFTER THE OPERATION AND WITH GLASSES IN THOSE CASES IN WHICH IT WAS INCREASED.

	Before operation.	After operation.
1. R. $\frac{20}{XXX}$		$\frac{20}{XX}$
2. L. $\frac{6}{CC}$		$\frac{20}{C}$
3. R. E. Qualitative perception.		R. E. $\frac{20}{CC}$ 4 days after.
4. $\frac{20}{XL}$		$\frac{20}{XXX}$
5. $\frac{5}{CC}$		$\frac{20}{CC}$
6. $\frac{10}{CC}$		$\frac{20}{CC}$

VISION—continued.

	Before operation.	After operation.
7.	$\frac{18}{LXX}$	$\frac{20}{L+}$
8.	$\frac{16}{CC}$	$\frac{20}{C}$
9.	$\frac{2}{CC}$	$\frac{20}{CC}$
10.	$\frac{20}{CC}$	$\frac{20}{LXX}$
11.	$\frac{20}{XXX}$	$\frac{20}{XX}$ This was the non-squinting eye.
12.	R. $\frac{20}{XL}$ L. $\frac{20}{L}$	R. $\frac{20}{XX}$ L. $\frac{20}{XXX}$
13.	$\frac{20}{CC}$	$\frac{15}{C}$
14.	$\frac{6}{CC}$	$\frac{8}{CC}$
15.	$\frac{20}{XL}$ Non-squinting eye.	$\frac{20}{XXX}$
16.	$\frac{14}{CC}$	$\frac{20}{CC}$
17.	$\frac{20}{C}$	$\frac{20}{C+}$
18.	$\frac{20}{LXX}$	$\frac{20}{L+}$
19.	$\frac{15}{CC}$	$\frac{20}{CC}$
20.	$\frac{20}{CC}$	$\frac{20}{LXX}$
21.	$\frac{20}{C}$	$\frac{20}{L}$
22.	$\frac{20}{XL}$ Non-squinting eye.	$\frac{20}{XX}$ No improvement in squinting eye.
23.	$\frac{20}{C}$	$\frac{20}{LXX}$
24.	$\frac{20}{LXX}$	$\frac{20}{L}$
25.	$\frac{20}{CC}$	$\frac{20}{C}$
26.	$\frac{20}{LXX}$	$\frac{20}{XXX}$ Hyperopic As. corrected.
27.	$\frac{20}{CC}$	$\frac{20}{LXX}$
28.	Fingers at 8"	$\frac{2}{CC}$
29.	$\frac{20}{L}$	$\frac{20}{XL-}$
30.	$\frac{20}{CC}$	$\frac{20}{LXX}$ Hyperopic As. corrected.
31.	$\frac{20}{C}$	$\frac{20}{LXX}$
32.	$\frac{20}{XL}$	$\frac{20}{XXX}$

A reference to the general table will show that the hypermetropia or hypermetropic astigmatism was almost always of a considerable degree, from a 36th to a 3½, and that there was almost always amblyopia of one eye.

These tables comprise all the cases in which exact notes show that the visual power was increased after the operation. I purposely say *after*, because the improvement of vision that is sometimes seen after a successful operation for strabismus convergens is, I believe, merely a *post hoc* and not a *propter hoc* occurrence. After I have performed an operation for strabismus, if the effect be not sufficient, in common with all surgeons, I suppose, I paralyze the ciliary muscle with atropia, and keep up this effect until it is shown that another operation is needed. It is during this stage that glasses are fitted. Inasmuch as the first examinations take place when the eyes are not under the influence of atropia, only the manifest hypermetropia is shown. In a certain proportion of cases we get a marked or slight improvement of the sight, especially of the squinting eye, with the appropriate glasses, or perhaps without.

But this improvement, which, as will be seen by reference to the table, is generally slight, is not due to the operation, but to the letting up of the spasm of accommodation. But in many instances this improvement is so slight, for example, from $\frac{20}{XL}$ to $\frac{20}{XXX}$, from $\frac{162}{CC}$ to $\frac{20}{CC}$, as to lead us to suspect that there may have been an error in the first examination.

In a discussion in the New York County Medical Society, some years since, upon the subject of apparent improvement in vision immediately after the use of strichnia, Dr. O. D. Pomeroy called attention to the fact that many patients have to be trained to see what they actually are able to see. Hence a second examination by test-letters often shows that a patient can read one more line than he did at the first, simply because he had learned how to pass this ordeal of picking out letters.

Schweigger reiterates this well-recognized fact, and warns the practitioner not to be sure that his patient actually sees more, because he reads another line or two on the second trial of the test-letters. Certain it is that this table gives no encouragement to the theory of an *amblyopia ex anopsia*, a loss of sight from disuse of the eye.

As to the cases in which I am not able to state positively what the vision was before and after the operation, I can only say, from pretty distinct recollection, that in no case was there any improvement in vision that could not be explained by the result from adapting proper glasses under atropia. The only case that I have ever personally seen, where any color is given to the theory of amblyopia, or deterioration of vision from disuse of the eye, is that of a squinting and hypermetropic female, in which my records state as follows: "Age seven, February 11, 1880. Periodic convergent squint, R. V. $\frac{20}{XX}$ —;

L. V. $\frac{20}{XX}$ —. February 18, same year, under atropia,

both eyes $\frac{20}{XX}$; w. + $\frac{1}{8}$; wears + $\frac{1}{16}$. May 3, 1884.

R. V. $\frac{20}{L}$; the same with a convex 10; L. $\frac{20}{X}$; accepts + $\frac{1}{16}$. The right eye is the squinting eye.

The record of the vision in 1880 was made by the late Dr. Edward T. Ely, and, I have no doubt, with his usual care and accuracy. The vision at final examination, when the squint was fully established, was made by Dr. J. B. Emerson. In this one case the lapse of four years does seem to have blunted the vision of a squinting eye. I doubt not, however, that the use of atropia and glasses, without an operation, would have very much increased the vision of this squinting eye.

This patient declined an operation at my hands, and was subsequently operated upon at a public institution, but no records of the result could be found.

That there may be a certain slight amblyopia due in a sense to the squint I do not deny, but this is usually trifling, and only indirectly caused by it, and should be considered apart from the congenital amblyopia, sometimes, and even usually, of a high degree, which, as I have before said, is one of the fundamental conditions of strabismus convergens.

I am very glad to be able to append to my table of 100 cases eleven additional ones, that were operated upon by Dr. F. M. Wilson, of Bridgeport, Connecticut, who, very kindly, gave the notes to me for publication. It will be seen that his results tally with those furnished by the larger number. In a few cases the final record of the patient's vision makes it slightly less than before the operation. As will be seen by referring to the general table, these cases of decrease of vision may be set down to incorrect observations either at the first or final examination.

COSMETIC RESULTS.

Parallelism resulted in	:	:	:	:	79
Convergence remained in	:	:	:	:	16
Divergence in	:	:	:	:	4
Upward squint	:	:	:	:	1
100					
When convergence remained but one tenotomy has been performed, in					10 cases.
Two tenotomies in four cases	:	:	:		4 "
Three tenotomies in two cases	:	:	:		2 "
					16 "

From these results, as well as from the impressions derived from experience in many more cases, the histories of which are not complete, I conclude that the following propositions are indicated:

1. The operation for convergent strabismus is successful in removing the deformity in from seventy to eighty per cent. of the cases operated upon.

2. When complete control of the patient may be obtained, and as many tenotomies as are necessary are performed, this percentage may be easily raised to more than ninety-five.

3. No essential improvement of the vision of the squinting eye arises as a result of the operation.

4. After parallelism of the optic axes has been secured, glasses may be worn that, in some cases, give an increased vision in the formerly squinting eye.

5. The loss of sight in a squinting eye is probably a congenital amblyopia, the nature of which is not exactly, if at all, known, and which is as yet incurable.

6. No substitute has, as yet, been found for the division of the recti muscles for the cure of squint.

I do not, for an instant, think that this paper, nor these conclusions, are anything more than a small contribution to the study of strabismus. Many points have not been even alluded to, but I think enough has been here shown to stimulate to further study of the subject, and to justify a continuance of our esteem for the illustrious Dieffenbach, who, on the 26th of October, 1839, first divided the internal rectus on the living subject for the cure of squint.

ON THE CONNECTION BETWEEN OBSTRUCTION OF THE LACHRYMAL DUCT AND * NASAL CATARRH.

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WHILE treating a case of chronic nasal catarrh, which chanced to be confined to the right side of the body, I was struck with the fact that the lachrymal passage on the same side became inflamed and the lachrymal sac distended at the same time that the treatment was progressing toward recovery. It was at least a strange coincidence that the obstruction should have occurred on the side corresponding to the chronically inflamed nasal mucous membrane, and the circumstances led me to make inquiry as to the frequency of the occurrence of lachrymal obstruction in chronic nasal disease.

As a result of my interest in the matter, I have come to the conclusion that the two conditions are not infrequently associated. The duct is obstructed in two classes only, namely, in chronic nasal catarrh, in which there are submucous infiltrations and atrophies, and in cases in which the bony walls of the nasal chambers are attacked either by osteitis or necrosis.

Through the courtesy of Dr. William F. Norris and of Dr. Charles A. Oliver, I have lately had an opportunity of examining a number of patients of the dispensary service at the Wills Hospital, and have been surprised to find that in every instance in which the lachrymal duct was obstructed, chronic nasal catarrh was also present. Twenty patients were examined in all. It would be a mistake in judgment to conclude that these figures represent the true numerical relation which exists between the two afflictions. As is well-known, the reception rooms of our large dispensary services exhibit a greater number of inveterate and unusual diseases than will be found in an equal number of patients in private practice. In my own practice, I have met with but three instances in which the afflictions were coincident. One of these has been alluded to above. The second was met with in a man, sixty years of age, who had an offensive discharge from the right nostril, and obstruction of the lachrymal duct of the same side. The patient declared that the discharge from the lachrymal sac often had an offensive odor, the odor, indeed, of the nasal discharge itself. It was

never purulent, however, and exhibited the appearances usual in lachrymal disease. In the third case the ducts were obstructed on both sides. The nasal chambers were covered with atrophied mucous membrane, and when first seen were occupied by the characteristic discharge of the advanced stage of the affection.

The lachrymal crests, in all cases examined, were either too prominent or too small. Apart from these trivial characters, no peculiarities of the osseous parts could be detected.

On page 421 of the English translation of Stellwag von Carion's *Treatise on Diseases of the Eye* occurs the following language: "It [blennorrhœa of the lachrymal passages] is frequently developed by a propagation of inflammation from the neighboring parts to the lachrymal passages. Especially important in this regard are inflammations of the nasal mucous membrane, the edges of the lids, and the conjunctiva." The author, in continuation, names the nasal conditions which may induce lachrymal disease, and he places in the first order "severe and long-continued nasal catarrh." Notwithstanding this dictum, the connection appears to have been to a great extent overlooked by later observers, and it is consistent, under the circumstances, to restate the facts.

MEDICAL PROGRESS.

PALUDISM AND PREGNANCY.—In a recent study by Bonfils (*Thèse de Paris*, 1885) the following conclusions, based on 140 observations, are presented:

1. Abortion is far from being the rule in women attacked with paludism during pregnancy. Premature delivery, however, is frequent.

2. The accidents induced by paludism are due to congestion of the uterus and its lining membrane, produced in the state of chill.

3. Pregnancy gives no immunity from malaria, and may sometimes awaken that diathesis.

4. Acute paludism renders labor active, but the cachexia appears to have the opposite effect.

5. In the parturient malarial sufferer the pulse is not so slow as is habitual; there is no diminution in temperature, retardation of uterine involution, frequent hemorrhage, and the lochia are not abundant.

6. A return of paludism after parturition is very frequent.

7. The sulphate of quinine has no ecbolic action, and should be administered to the pregnant woman and the nurse when affected with malarial fever.—*Gaz. Méd. de Paris*, Jan. 2, 1886.

PHYSIOLOGICAL ACTION OF AMYL NITRITE.—In contradiction to the usual statement, that nitrite of amyl effects a lowering of the blood-pressure, SCHWEINBURG maintains that in small doses, as ordinarily exhibited by inhalation, this agent produces a rise of arterial pressure to the point at which there appear flushing of the face, carotid pulsation, and sensations of heat. These observations, which were made on men by means of the sphygmomanometer, are reconciled with the statements of previous observers by a series of experiments on dogs, in which it was shown that large doses, or often

repeated small doses of the nitrite produce a diminution of arterial tension.—*Centralb. f. d. med. Wiss.*, Jan. 2, 1886.

PAPAYOTIN IN DIPHTHERIA.—KRIEGE has employed papayotin in five per cent. solution as a local solvent in diphtheria and croup, in some fifty-eight cases. After emphasizing the necessity of employing a reliable preparation of the drug, he states that while papayotin is no specific in diphtheria, its application is of great benefit, and absolutely without danger. It was shown to be of especial value in tracheotomy. The so-called infiltrated forms of diphtheria are uninfluenced by the drug.—*Centralb. f. d. med. Wiss.*, Dec. 19, 1885.

CARBOLIC ACID IN PHthisis.—TILLEAU records several cases in which the symptoms of pulmonary phthisis have been greatly ameliorated by the use of carbolic acid, especially in hypodermatic injection. Stress is laid upon the necessity of purity in the acid, which should be absolutely white, and should not become discolored by keeping. A one per cent. solution is used, which, it is claimed, never causes the formation of abscesses.—*Journal de Médecine*, Jan. 3, 1886.

TUPELO IN DILATATION OF THE UTERINE CERVIX.—MÉNIÈRE regards the tupelo root as preferable to sponge or laminaria for the following reasons:

1. Tupelo acquires its maximum degree of expansion in less than an hour and a half, while sponge and laminaria require from six to seven hours.

2. Its surface remains soft, pliable, and spongy, and in extracting it there is no danger of injury to the mucous membrane.

3. It returns with facility to its former size and shape, and may be used several times if subjected to disinfection in mercuric chloride after each operation.—*Gaz. de Gynécologie*, Jan. 1, 1886.

INTERNAL USE OF CARBON BISULPHIDE.—The *Pharmaceutical Record* for Jan. 15, 1886, quotes the account given in the *Répertoire de Pharmacie*, 1885, p. 541, of the observations of DR. SAPELIER. This observer has shown that *pure* bisulphide of carbon is not at all poisonous when given by itself, but immediately becomes so when given together with alcohol or to persons who use alcoholic beverages, because then sulphuretted hydrogen will be formed. With these precautions he regards it as an invaluable antiseptic remedy in typhoid fever, and all intestinal diseases accompanied by putrid fermentations.

Chemically pure bisulphide of carbon . . . 10 parts.
Distilled water 500 parts.

Mix and keep in a black or amber bottle. Of the *decanted* water give 6 to 20 tablespoonfuls in the 24 hours, either in lemonade or in milk.

VENESECTION FOR HEMORRHAGE.—A correspondent of a Madrid medical journal, writing from Zaragossa, says that in cases of hemorrhage, notably in haemoptysis and in epistaxis, if astringent remedies fail to arrest the attack, the simplest and best proceeding is to open the saphena or basilic vein. So far from alarming the patient and his friends, he finds that it rather tends to reassure them, for there is an idea very prev-

alent in Spanish towns that "a doctor who does not bleed is not a good one." Many patients, too, with epistaxis will exclaim that they would rather die than allow an instrument to be passed into the nostril, but they will readily consent to allow a vein to be opened, especially when they are assured that this proceeding will almost infallibly cause the flow of blood from the nose to cease. The writer says that this assurance may be given with the utmost confidence, as he has constantly employed venesection for this purpose with very great success.—*Lancet*, Jan. 16, 1886.

MICROBIOLOGICAL STUDY OF THE LOCHIA.—FASOLA presents, in the *Annali di Ostetrica*, the following results of his microscopic studies of the lochia in four various conditions :

1. Microorganisms are constantly to be found, both in normal and pathological lochia, several hours after delivery, even when carbolized or mercurial injections have been given during the labor. The most usual form is the micrococcus; bacilli are rare.

2. In normal labor, and in the absence of any prophylactic medication, their number is very small; they augment in the first few days, and disappear about the seventh or eighth day.

3. If vaginal injections be given during labor, the growth of microorganisms is retarded. They are found in greatest number when the lochia are altered by puerperal ulcerations or by endometritis, but after intrauterine injection their number diminishes notably.

4. On repeating the carbolized intrauterine injection every day during the puerperal period, the microorganisms remain infrequent, even in fetid lochia. The number is still smaller if solutions of corrosive sublimate are used.—*Arch. de Tocologie*, Dec. 1885.

EFFECTS OF DIASTATIC FERMENTS ON COAGULATION OF BLOOD.—SALVIOLE, of Genoa, has shown that the diastatic ferments have the property of preventing blood coagulation in much the same way that peptone produces this effect. The ferments employed were vegetable diastase, the amylolytic ferment of the liver, and ptyalin. The first two of the ferments named were found to give the most marked results, and when injected into the circulation in the amount of from 0.06 to 0.08 of one per cent. of the weight of the animal, rendered uncoagulable the specimens of blood removed from time to time for an hour and a half after the injection. The best results were obtained with dogs, the method being practically without effect on rabbits and guinea-pigs.—*Centralb. f. d. med. Wiss.*, Dec. 19, 1885.

SOOTHING APPLICATION IN NEURALGIA.—MAYET has presented, before the Société de Thérapeutique, the following formula for a very neat and compact local application for use in neuralgic affections :

Chloral hydrate	5 parts.
Crystallized menthol	5 "
Cacao butter	10 "
Spermaceti	20 "

These constituents are mixed into a paste, which is divided into pieces about two-fifths of an inch square, and weighing about thirty grains.

Chloral thus applied in cacao butter has no local irri-

tative effect. The part affected is to be gently rubbed with one of the squares, which is then allowed to melt at the most painful point.—*Journal de Médecine de Paris*, Dec. 27, 1885.

USE OF THE OESOPHAGEAL SOUND AFTER THE OPERATION FOR HARELIP IN INFANTS.—The use of an appropriate oesophageal sound, after the operation for harelip in infants, is strongly commended by BAR, as being of direct benefit in two ways.

First, all sucking movements of the lips, with consequent danger to the sutures, are avoided; and, second, the food does not come in contact with the wound. According to Bar, the introduction of the sound is readily effected in infants, and is entirely without danger.—*Centralb. f. d. med. Wiss.*, Jan. 16, 1886.

ARTIFICIAL SUPPRESSION OF MENSTRUATION IN CHLOROSIS.—LÖWENTHAL, of Lausanne, reports his observations on twenty-three cases, in which the artificial suppression of the menses proved a valuable therapeutic measure.

The method employed consisted in injections of hot water, of at least 120° F., with close restriction to bed. In very rare cases, ice water was found to be preferable to hot water.

Eighteen of the cases described were chlorotics, and the remaining five included two cases of severe hysteria and three convalescents from exhausting diseases. In the cases last named, a shortening of the period of convalescence was effected. One of the hysterical cases was markedly benefited, and all of the chlorotics were cured with surprising rapidity, and without further medication, after from two to five suppressions. Evil consequences were in no case noticed.—*Wiener med. Presse*, Dec. 13, 1885.

PRESENCE OF PEPTONE IN PATHOLOGICAL ORGANS.—MIURA has set before himself the query whether any non-bacterial influences which cause the destruction of living tissues induce at the same time a production of peptone. In attempting to decide this point, phosphorus, the destructive action of which upon tissue-albumin is well known, was chosen. In rabbits poisoned with this drug, peptone was constantly present in the liver, heart, and kidneys; in the liver to the extent of 0.14 to 0.76 per cent. of the weight of the fresh organ. Similar results were obtained in the case of a dog poisoned with the same drug. Control experiments gave negative results. In six fatal cases of puerperal fever peptone was constantly present in the liver on an average to the extent of 0.59 per cent. of its weight, and was usually present in heart and spleen.—*Centralb. f. d. med. Wiss.*, Jan. 16, 1886.

HYDROCYANIC ACID AS A RESULT OF THE FERMENTATION OF FLAXSEED.—JORISSEN, in the *Bulletin of the Royal Academy of Belgium*, has shown that a mixture of flaxseed meal and warm water exposed to a temperature of 80° F., will, upon distillation, yield a certain quantity of hydrocyanic acid. This observation has been confirmed by SENIOR, who has further shown that the result in question is not due, as had been supposed, to the presence of any adulterant in the flaxseed. The application of these observations is evident.—*Les Nouveaux Remèdes*, Jan. 1, 1886.

THE MEDICAL NEWS.

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SATURDAY, FEBRUARY 6, 1886.

THE NEW YORK STATE MEDICAL SOCIETY.

THE eightieth annual meeting of this Society was held at Albany this week, and a full account of its proceedings, received by telegraph from our special reporter, appears in this issue of THE NEWS.

The meeting was largely attended, and the papers presented were numerous and of more than usual interest and scientific value. The President, in his Inaugural Address, calls attention to several ways by which it is thought the influence and usefulness of the Society may be extended. His remarks in reference to the organization of the Washington meeting of the International Medical Congress, if only from the fact that they represent the views of such a large and influential body of the profession as that composing the Medical Society of the State of New York, command thoughtful consideration.

Of the scientific proceedings, we can now only call attention to some brief remarks on the subject of gymnastic training, by Prof. Loomis, which will be read with special interest, since nowadays physical training has become a fad, and athletic sports occupy a prominent place in the college curriculum. Dr. Loomis's word of warning, based on a large clinical experience, is timely, and must lead to a more careful and exact consideration of the whole subject from a medical standpoint, than it has yet received in this country. The statement that our young men are over-trained, and that thereby the foundations for cardiac and pulmonary disease are laid, although coming from such high medical authority, will not go unchallenged. The public will anxiously look for the data upon which these views are based, and we hope that Dr. Loomis will lose no time in making a full presentation of them.

THE PROSPECTS OF NATIONAL PUBLIC HEALTH LEGISLATION.

THAT it is very desirable that the present Congress should adopt some measure which will provide for a permanent national sanitary bureau seems to be generally admitted. It is also the opinion of the great majority of physicians and sanitarians, as well as of members of Congress, that it is useless to attempt to rehabilitate the present National Board of Health. It has become evident to most of the friends of the National Board that no satisfactory results can be expected from it under the existing law, owing, mainly, to the fact that it is connected with a department which, if not actively hostile to it, is, at all events, by no means disposed to aid it.

Under these circumstances the representatives of the American Public Health Association and of the Association of State Boards of Health seem to have come to the conclusion that the best thing to be done is to give up the idea of a board of health as a part of the machinery of the general government, and to create instead a bureau of health, in the Department of the Interior, which bureau shall have at its head a Commissioner of Health, and the general organization of which shall be analogous to that of the Bureau of Education.

The bill for this purpose provides that the Commissioner of Health is to perform substantially the same duties as those which were assigned to the National Board by the Act which created it, viz., to collect and diffuse information on matters relating to public health, to make investigations into the causes of disease and the best methods of their prevention, and to publish in a weekly bulletin such statistical and other information relating to these subjects as it may be able to obtain.

The Department of State, through its consular officers, is to furnish the bureau with information as to the sanitary condition of foreign ports, and especially as to the occurrence and progress of pestilential disease abroad.

The Commissioner is to be the official adviser of the Government on all questions affecting the public health, but he has no executive duties or powers, and he is to have nothing to do with quarantine work in this country.

The bill seems to be simple and practical, and one of the passage of which there is a fair probability.

There is certainly not the least probability that Congress will give any funds to the present National Board, or that the Executive will entrust it with duties or moneys, nor is it probable that Congress can be induced to pass any law organizing a national board on the principle of State representation.

It seems, therefore, advisable that all who favor the creation of some kind of national sanitary organization should aid the officers of the American

Public Health Association in their efforts to secure the passage of the bill above referred to, even though they may think that the bill does not confer such duties and powers as they would like to see vested in the Department of Public Health of the United States.

Besides the question of a sanitary bureau, Congress has before it the question of the creation of a special Commission to visit South and Central America, and investigate the truth or falsehood of the alleged discoveries of Freire and Carmona with relation to the specific microorganism of yellow fever, and the possibility of protective inoculation against this disease. The proposal to send such a Commission has been presented by Dr. Joseph Holt, the President of the State Board of Health of Louisiana, in behalf of the American Public Health Association, and seems to meet with the approval of the committees of the House and Senate, to which it has been referred for consideration.

While we have serious doubts as to the accuracy and value of the conclusions reported by either Freire or Carmona, and it may be noted that their conclusions are very discordant, we do believe that they are on the right road as to methods of investigating the specific cause of yellow fever, and that the creation of the Commission as proposed by Dr. Holt is an eminently proper and judicious piece of legislation on the part of Congress.

SAVING THE PERINEUM.

MANY of our readers will remember that in antebellum times "saving the Union" was an expression in common use, by some in all sincerity, by others in irony. Saving the perineum, that is, saving it from rupture, is becoming quite as common an expression in medicine as saving the Union was in political affairs during the few years that preceded our civil strife.

Methods of saving the perineum from being torn in childbirth are presented annually, semi-annually, almost quarterly, until they threaten to be as numerous as uterine specula. If a new method cannot be devised by the ingenuity of an obstetrician, an old one may be revived, and proclaimed upon the basis of infallible statistics to be the right one. Possibly it may suggest itself to some minds that the very multiplicity of means proposed to prevent perineal tears, is proof that no one is always efficient, and that in some cases the perineum will be ruptured no matter what method is used. The truth is, several factors enter into the production of these lesions, as, for example, the form of the perineum, the condition of its tissues, the size of the child, the presentation and the position, the character of the expulsive force, the conduct of the patient, etc.

We have been led to make these reflections from an article by DR. MEKERTTSCHIANTZ, in a recent number

of the *Archiv für Gynäkologie*, upon tearing of the perineum and protective means. The method he advocates for preventing such tears is that of relaxation of the perineum. While he acknowledges the general plan an old one, having been recommended by Flamant, Weigand, Busch, Velpeau, and others, yet he claims that no one has hitherto made a positive method of it—that it has not been used systematically.

While directing that the method must be suitably modified according to the presentation, he gives the following description of it as applied to ordinary vertex presentations. The patient lies on her back, the lower limbs are flexed, but the knees must not be so widely separated that the perineum is at all stretched. When the presenting part presses the perineum forward, the obstetrician sitting on the woman's right side, grasps with the thumb of the right hand the right side, and with the fingers the left side of the perineum, trying to relax each side. As soon as the head enters the vulval orifice and the frenulum is stretched, the left hand is carried over the woman's right thigh, and placed with the ulnar margin on the mons veneris, so that the thumb over the right labium and the middle finger over the left labium, grasp the frenulum from each side, and, as the thumb and finger approximate each other, it is relaxed. The presenting head, now in the vulval cleft, is, by means of the vola of the left hand, subjected to light interrupted pressure, and emerges between the fingers placed at the sides. After the birth of the head, the left hand disengages, if necessary, the navel cord, and is then used for completion of the delivery of the child, while the right is relaxing the perineum during the expulsion of the shoulders.

The results of this method in the author's hands are remarkable, for out of fifty primiparæ, in only two was there a trifling rent of the mucous membrane observed. The method is undoubtedly a good one, but it promises too much, for one is always sceptical in regard to an infallible remedy. Moreover, the position in which Mekerttschiantz places the parturient, on her back, is one in which the perineum is more liable to tear than if she lie on her side.

MITRAL STENOSIS.

In the January number of *The American Journal of the Medical Sciences* there are, among several important papers on heart affections, two upon mitral valve disease and its symptoms, which are worthy of special consideration.

DR. AUSTIN FLINT discusses the mitral cardiac murmurs and their significance, while DR. BROADBENT, of London, deals exhaustively with the subject of mitral stenosis, to some of the general features of which we propose, on this occasion, to refer.

Among the peculiarities in the clinical history of this common affection which still lack a suitable explanation, is the frequency of it among women. The estimates of various authors given by Dr. Broadbent, range from 66.6 per cent. to 78.75 per cent. Girls are more subject to rheumatism than boys, and the greater liability of girls to anaemia at the period of puberty may be a factor in inducing the valve disease. The greater prevalence of chorea in girls, and the well-known predilection of the endocarditis, in this disease, for the mitral valves, are, we think, important causes of the greater frequency of mitral affections in women. The endocarditis resulting in sclerotic changes is an insidious process to which the acute warty form is related only as an excitant. The valvulitis in rheumatism, chorea, and scarlet fever is usually harmless, as such; the little beady excrescences soon disappear, but irrevocable damage results from the tendency, which so often remains, to slow proliferative changes, by which the valve tissues are gradually sclerosed and the segments deformed. Dr. Flint remarks on the frequency with which the lesion is met with in persons who have never had rheumatism.

Another unsettled question relates to the existence of this lesion in children. Dr. Broadbent has had more cases of advanced mitral stenosis in children than any other serious form of heart disease. The experience of individual observers is by no means unanimous on this point. Hayden, Fagge, Sansom, and Loomis, speak in much the same terms as Broadbent, but Duckworth's statistics do not support this view, nor do our own more limited observations. Of twenty-three cases examined after death, the youngest was seventeen. Excluding congenital cases, we should say that mitral constriction is rare before puberty, much more so than a curling of the edge of the curtains with the production of marked incompetency, without much, if any, narrowing of the orifice.

The pulse of mitral stenosis is usually described as small, feeble, and irregular, but in Broadbent's experience it is almost invariably regular until failure of the heart occurs, when the irregularity may become indescribable and it is impossible to time sounds or murmurs. Cases, however, go to a fatal termination with little or no disturbance of rhythm. There is a modified high-tension—*i. e.*, the artery is small, but is full between the beats and can be rolled under the finger. Mitral stenosis is usually regarded as the lesion most likely to be associated with general cardiac dropsy, but Broadbent holds that in uncomplicated cases this symptom may be absent until very late in the disease or may never appear. He has met with an extreme degree of anasarca only when the tricuspid orifice has been narrowed. The records of Guy's and of St. Mary's Hospitals certainly bear out this statement.

While all authors are agreed that aortic incompetency is the most serious of heart affections, there is still a difference of opinion as to the next in gravity. Broadbent unhesitatingly gives the place to mitral stenosis, and yet his figures show the average age at death to be for males, 33, and 37 or 38 for females. This is a high average for an affection which, as many authors state, is especially met with in the young. The special danger is believed to be connected with the greater difficulty in the establishment of full compensation. But is this so? Do we not frequently meet with well-marked cases of mitral stenosis going about and enjoying life undisturbed by the consciousness of heart weakness? As Broadbent says, they often have not, up to an advanced stage, the look of heart disease, being neither pallid nor anxious looking, nor livid and dusky. Up to the very moment of the onset of serious symptoms the patient may be unconscious of cardiac embarrassment, and may do ordinary work, "even when this necessitates going up and down stairs." This means very perfect compensation, which certainly, in our experience, may be developed *pari passu* with the narrowing of the orifice, and be maintained for years. Dr. Flint refers to the long tolerance of this form, and speaks of cases which have been under his observation for from ten to fifteen years. As he well remarks, such facts must be taken into account with reference to the prognosis, and we still are inclined to follow Peacock and some of the older writers, and put mitral incompetency next in order of gravity to aortic regurgitation.

To the interesting questions in diagnosis contained in these papers we shall return on another occasion.

IODOL.

THE recent discovery of a substance to which has been arbitrarily given the name of iodol, and its application as an antiseptic to wounds, have been mentioned in THE NEWS. Desirous of knowing whether iodol had unequivocal germicidal power, and, having that power, how great it was, we applied to DR. STERNBERG to test these points. He very kindly has made this investigation, and we are sorry to say that the results are negative. He states that a saturated aqueous solution was added to an equal quantity of gelatine solution, and put in a warm place; at the end of twenty-four hours the mixture was swarming with the bacteria of putrefaction. The experiment was repeated with urine, and the result was similar. He then added a considerable quantity of the powder to fresh urine, in a test-tube, and after shaking the mixture well allowed the powder to subside, and then added a drop of broken-down urine. At the end of twenty-four hours the urine in the test-tube had undergone putrefactive decomposition, and was swarming with microorganisms. In addition to the insolubility of iodol as thus shown, Dr. Sternberg suggests that

as a powder in direct contact with a granulating surface, iodol might have a certain antiseptic value, or possibly in the presence of a discharge from a suppurating wound it would be slowly decomposed, and iodine set free, but this can only be determined by clinical experiment.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Eightieth Annual Meeting, held in the City Hall, Albany, February 2, 3, and 4, 1886.

(By Telegraph from our Special Reporter.)

TUESDAY, FEBRUARY 2.—FIRST DAY.

MORNING SESSION.

The Society was called to order at 10 o'clock by THE PRESIDENT, DR. ALBERT VANDER VEER, of Albany, who, after prayer by the Rev. Walter D. Nicholas, delivered

THE INAUGURAL ADDRESS.

He congratulated the Society on its excellent financial condition. He suggested that the By-laws be changed, under the authority given by a recent Act of Legislature, so that the number of delegates and permanent members from the county societies be increased at least fourfold. He recommended that in every alternate year the annual meeting be held in some other part of the State than Albany, believing that this would create local interests which would eventually lead to mutual good.

In reference to the International Medical Congress, he said: In the time that has elapsed since we last gathered here, the medical profession of this country has been called upon to pass through, it is to be hoped, its greatest period of humiliation. We that were present remember well the pleasure that was afforded when Dr. J. S. Billings, at Copenhagen, in the name of the profession of the United States, extended the invitation to the International Medical Congress to meet in 1887 in America, and rejoiced to see that invitation so cordially accepted. Alas, how soon were our hopes and delights dashed away from us, when the American Medical Association at the meeting in New Orleans saw fit to undo all the good work that the original committee of seven had accomplished, and under the plea of geographical distribution enlarged its committee to forty-five members, doing it so cunningly as to drop the names of all who had ever been independent and fearless enough to express in an honest and manly way their convictions on the subject of all codes.

The result of that action is well known to us all. The great solicitude for the success of the Congress manifested by those who manipulated that movement has produced its effects, as was expected by the better judgment of men whom they would not heed.

Many resignations have resulted, until at last it becomes a grave question as to whether the Congress will meet here at all in 1887, and if so, the success of the meeting appears doubtful. I well remember having conversations with many of the foreign members in

regard to the meeting of 1887, and it was well understood by them that all questions relating to codes and medical politics were to be left out, and only on such condition would they accept. As one has so well remarked, "The way is long and the fear of the sea is strong," and there must be unity and peace and great attractions to bring them from the mother country.

Among the names so dropped are those of many of the very men about whom foreign physicians are the first to inquire, and with whom they are best acquainted, not only through their writings but by personal contact. In speaking of this uncalled for action on the part of the American Medical Association most of the foreign journals have condemned it, but the remark of one, especially, is so true that I make the quotation: "The American medical profession is not so rich that it can afford to play all Europe with only pawns on its side of the board." Whether, as has been suggested, it is possible for the American Medical Association to accept the advice given by the best men of Philadelphia, and retrace its steps, is a matter of grave doubt. Time is passing rapidly, and what is to be done must be done quickly.

How different the action at New Orleans from the sentiment of that great scholar, Prof. Virchow, as embodied in his last address before the Congress of German Surgeons. While dwelling upon the subject, he states tersely that no body of scientific men who are honest and true need anything on the subject of medical ethics to guide them. No codes—for no man has ever yet been made by such restrictions to act the part of a gentleman who would not naturally have done so without them.

It is a source of gratification to us as a Society to witness the good results now being obtained by our position of a few years since, regarding the proper understanding of the Code of Ethics. The Society which then so hastily and promptly refused our delegates admission to its meeting at St. Louis, has since had its conscience disturbed, and at its last convention in New Orleans gave an interpretation of certain portions of its Code, which is surely in the right direction, differing but little in reality from our own view of the question. I have no love for quarrels and would say, let the American Medical Association alone in its view of Codes, but when it attempts, as it has, first to refuse us recognition in a Congress in which we have as much right to be represented as they, and then, at last, when the pressure of professional opinion becomes too great, offers us membership but no official standing, it is time we protest. An editorial in THE PHILADELPHIA MEDICAL NEWS of January 30th, entitled "The Congress Controversy and the Code," is so fair and candid in its statements as to the situation, that I would earnestly refer its perusal to every honest-hearted member of the profession in this country.

THE PRESIDENT then announced the serious illness of the VICE-PRESIDENT of the Society, DR. ALFRED C. POST, of New York.

DR. VANDER POEL offered the following resolution, which was unanimously adopted:

Resolved, That this Society learns with regret of the illness of its Vice-President, Dr. Alfred C. Post, and tenders to him its earnest sympathy and sincere hope of his recovery.

THE BUSINESS COMMITTEE offered the following:

Resolved, That a committee of three be appointed by the President to consider the recommendations contained in the Inaugural Address, and report at this meeting. Adopted; and Drs. F. R. Sturgis, of New York, W. S. Ely, of Rochester, and H. R. Hopkins, of Buffalo, were announced as the committee.

The Provisional Business Committee, consisting of Drs. W. W. Potter, of Buffalo, Daniel Lewis, of New York, and A. M. Phelps, of Chateaugay, was appointed as a Permanent Business Committee.

THE COMMITTEE ON LEGISLATION

reported that a bill to establish a Board of Medical Examiners had been prepared and is now pending in the Senate and Assembly.

The following bill has been introduced and passed:

"That the Medical Society of the State of New York should have full power to elect such number of permanent, delegate or other, members as may be provided for by the Constitution or By-laws of the State Medical Society, said Medical Society of the State of New York being hereby empowered to regulate and control its own membership."

The following bill was also passed:

"That medical societies may hold real or personal property to an amount not exceeding one hundred thousand dollars, and that no member of any said society shall be assessed a greater sum than five dollars in any one year."

DR. C. L. STILES, of Oswego, reported the

HISTORY OF A CASE OF ABSCESS DISCHARGING THROUGH THE BLADDER.

F—, aged fifty-seven, married, plumber by occupation, ex-cavalryman, claimed to have received an injury in the region of the spleen by slipping from his horse during parade. At the time of accident he had pain at point of injury, and the part was tender for some time. Dr. Stiles saw him August 9, 1881, and treated him for splenitis, from which, after a time, he recovered.

In May, 1882, the feet and legs became swollen, the condition of the left limb being most marked. Urine contained albumen. He recovered after several weeks' treatment.

May 5, 1885, he was again seen, complaining of pain and tenderness in the region of the spleen, $2\frac{1}{2}$ inches below and $1\frac{1}{2}$ inches to left of umbilicus. Here there was an area of considerable hardness, $2\frac{1}{2}$ inches in diameter and $\frac{3}{4}$ inch in thickness. This spot was not very sensitive, but it was the seat of considerable dull pain. This enlargement was noticed three months previously. On May 28th, he was almost free from pain, but the enlargement remained the same. He then returned to work. There was no evidence of fluctuation.

On October 29th, he was seized with violent attacks of colic. November 4th there were similar attacks, both relieved by a hypnotic. November 23d he was again seen, at which time the enlargement was unchanged.

On December 2d he suffered considerable pain. On the 3d the enlargement measured six by seven inches and three inches in thickness. No fluctuation could be detected. There was no rise in temperature. On the 7th, fluctuation was detected, and it was resolved to aspi-

rate the next morning. On the 8th the enlargement had disappeared. The patient stated that the tumor was present at 4 o'clock the previous afternoon, but at 6.30 P.M., the same day, he found that it was absent. It had disappeared without his knowledge, although he was awake. There had been no inconvenience or pain produced. At 8.30 P.M. the patient passed a large quantity of dark colored urine. Later he passed a still larger quantity. Examination of the vessels containing the fluid passed showed that there was at least a quart of pus. Microscopic examination revealed the presence of abundant cholesterine crystals. For the next two days more or less pus was passed. The patient experienced no pain or inconvenience where the enlargement had been. From this time he rapidly improved, and on January 28th was at work and had been working for two weeks.

DR. J. LEONARD CORNING then read a paper on

THE CURATIVE POTENCY OF PROLONGED SLEEP.

The progress in therapeutics has undoubtedly been great of late years, but in spite of the advancement in the classification and knowledge of remedies our greatest victories are won through the coöperation of nature herself. The *vis medicatrix naturæ* remains still the factor of greatest potency in treatment; if we desire to combat disease successfully, we must lay hold upon some great law or laws of physiology and appropriate the hidden forces thus placed at our disposal to the ends of scientific therapy. One of the most brilliant, if not the most striking exemplification of the truth of the above proposition is found in the practical application of *rest* to curative ends. Unfortunately, however, there has been great confusion in the conceptions of rest heretofore prevalent. If we are asked in what manner does the brain obtain rest, we reply: through the instrumentality of the conditions collectively designated as *sleep*. Therefore, any system of cerebral rest which can lay claim to physiological consistency, must have for its corner-stone sleep. And furthermore, inasmuch as the amount of sleep is in direct proportion to the vital expenditure of the organ, we should see to it that the greater the exhaustion of the brain the greater the amount of sleep we prescribe for our patient. *Prolonged sleep may, therefore, be set down as the cardinal principle of physiological brain rest.* It must, however, be combined with systematic and scientific overfeeding, in order that repair of the exhausted brain may proceed in a physiological manner during the interval of unconscious repose.

The essential features of a scheme of brain rest then, are: (1) progressively prolonged sleep; (2) increased general and cerebral nutrition; (3) diminution of psychical irritation; (4) elimination of sensory impressions, particularly those of light and sound.

In carrying out this scheme of treatment, Dr. Corning is in the habit of secluding the subject in a darkened room, eventually for from ten to fifteen hours at a time, according to the amount of sleep which it is desired shall be had during the twenty-four hours. The amount of sleep is progressively increased by habit, moderate medication, and hydrotherapy; but he never resorts to forced sleep by the reckless abuse of sedatives. When the patient awakes, as is sometimes the case, two or three times during the hours set apart for rest, nourish-

ment is administered, but always in an easily digested form. The few hours of wakefulness are devoted to some form of amusement, but all forms of mental exertion are strictly prohibited.

DR. B. F. SHERMAN then reported

A CASE OF EMPYEMA,

which illustrated the result of using the aspirating apparatus and the valvular drainage tube devised by Dr. A. M. Phelps. The aspirator differs from those in ordinary use by having a third tube through which the bottle may be cleaned and the pleural cavity washed out. The aspirating needle is modified by being provided with a shield to prevent irritation of the tissues.

The patient was seen June 15th; aged nineteen, farmer, parents living and healthy. In the previous September had measles, and while convalescent, on Oct. 11th, had a severe chill followed by fever with severe pain in the right side. The pain and fever continued and the right side became swollen. On December 3d, a small opening in the sixth interspace, right side, formed, through which a large amount of pus escaped. This gave temporary relief.

When the patient came under his observation, there were profuse night sweats, great emaciation, and extreme weakness, the patient fainting during the examination. Pulse 130, respiration 40, temperature in axilla 103° . The right side of the chest was enlarged, the intercostal spaces bulging. The whole right side was flat on percussion to within one inch of the clavicle. The left side was resonant throughout. There was no sound on auscultation over the right side until the clavicle was reached. On the left side there were exaggerated respiratory murmurs.

Jan. 17th, at 10 A. M., three grains of quinine and one ounce of whiskey were given, and the aspirating needle introduced between the ninth and tenth ribs, two inches to the right of the spine, and thirty-two ounces of pus were drawn off. The pleural cavity was then washed with carbolized water, 1:80, at a temperature of 100° F. The operation was well borne. On the 18th there was only a slight discharge from the opening in front and none from that in the back. On the 21st, sixteen ounces of pus were removed. A valvular drainage tube was introduced into the posterior opening, and the anterior opening was enlarged and a rubber tube fitted with a plug was introduced. A few days later the chest was again washed out and forty ounces of pus, by actual measurement, removed. This treatment was continued until July 20th, when the tubes were removed and the openings sealed with lint saturated with compound tincture of benzoin. July 25th, the patient was discharged cured, and in August he returned to work in the harvest field.

A year later, the lung was in perfect condition, there being no deformity of the chest.

DR. WM. S. ELY, of Rochester, then read a paper on

PULMONARY GYMNASTICS.

Although it is well understood that a relation exists between chronic pulmonary disease and defective chest development, it is not the rule to recommend any special treatment for overcoming this condition. Sometimes the pulmonary capacity is deficient from lack of development, at other times it may be diminished by

compression of the lung from pleuritic effusion. The object is to discover some plan of treatment which shall in the one case symmetrically increase the chest circumference, and in the other expand the compressed lung. He had been led to believe that at any age lung expansion, when deficient, could often be relatively increased by the persistent use of pulmonary gymnastics.

In ordinary respiration only a small part of the pulmonary capacity is called into play. While in quiet breathing the tidal air is stated as about twenty cubic inches, when extreme breathing is tested the complementary air is said to be equal to one hundred and ten cubic inches. The author had for years noted the undeveloped action of "extraordinary auxiliary muscles" as a result of disuse.

The process for increasing chest expansion was described as follows: The head is fixed, and the extended arms carried upward until the backs of the hands touch at the highest point over the head. The arms are next dropped to the side, and the chest-wall is subjected to a series of direct, light, percussive efforts. To be of value, these efforts must be continued for months. One hundred of these full inspirations should be taken daily. When the efforts produce coughing, pain, dizziness, or headache, they should be temporarily omitted.

The movements described have been supplemented by subjecting the distended chest to pressure by voluntary contraction of the muscles of the abdomen and chest, while the air is prevented from escaping. Like all important remedies, this may operate injuriously. Pulmonary gymnastics can be safely prescribed only by physicians possessed of correct anatomical and physiological knowledge, and competent to diagnose and prescribe for different forms of thoracic disease.

DR. A. M. PHELPS, of Chateaugay, had, in 1878, operated in a case of empyema and used the valvular drainage tube. This afforded not only thorough drainage, but also enabled the cavity to be completely washed out. The idea was to cause obliteration of the abscess cavity. On the one side is the rigid chest-wall, on the other, the lung capable of collapse and expansion. The tube was intended to permit the escape of air from the pleural cavity while it prevented its entrance during inspiration. He had operated on six cases, using this tube. Three had recovered. Two were cases of multilocular abscess, and one was a case of amyloid degeneration of the lung and resulted fatally.

DR. A. L. LOOMIS, of New York, considered that the length of time the lung could be compressed and yet be restored to its normal condition, depends largely on the location of the inflammatory process. If limited to the costal pleura, a long time may elapse, while if there are extensive changes in the pulmonary pleura, the lung will expand only slowly, imperfectly, and never completely.

The case described was unquestionably one of acute suppurative inflammation. In such cases the cavity may be rapidly filled with pus; this may occur in the course of twenty-four hours. In these cases the inflammation affects chiefly the costal pleura. There is, of course, more or less secondary suppurative inflammation of the pulmonary pleura. There is, however, very little interstitial change in the pleura, at least for some

time. He is satisfied if the effusion is absorbed within a month or two, and if this takes place within a week or two perfect expansion of the lung may be expected, so that, as in the case reported, it might be difficult, a year afterward, to state which side had been affected.

There can be no question that in suppurative pleurisy the pus should be removed as soon as formed. Aspiration is simply temporizing; so far as his experience goes, aspiration is worse than useless. The only proper way is to make a free opening, and, if desired, a counter-opening. If the operation is performed early, a single opening is sufficient. A drainage tube should then be introduced. If the pus has no offensive odor, he does not believe in washing out the cavity. He saw no necessity for the valvular drainage tube. The lung will expand, if it is not bound down, as soon as the fluid is removed. This is shown in cases of injury to the ribs permitting air to enter the pleural cavity. The lung will not collapse unless it is injured. In pure suppurative inflammation it is not necessary to wash out the cavity. The changes will go on rapidly and from two to six weeks will be the limit of the case if the opening is made early. This is the great point in these cases.

In regard to Dr. Ely's paper, he had paid considerable attention to the subject of pulmonary gymnastics in his own person, and had found that, unless he was in excellent physical condition, such exercise is harmful, enfeebling respiration and increasing the danger from exposure. The question of pulmonary gymnastics in pleuritic adhesions and pulmonary disease is another matter. He thought that, although much had been written on this subject, nothing satisfactory has been attained, unless it is to be found in Dr. Williams's pneumatic cabinet.

With reference to rowing and college gymnastics, he considered that the severe training and prolonged muscular effort of such sports were laying the foundation for many cases of cardiac and pulmonary disease. As a rule, college men are overtrained for boat races and other athletic sports, and he had seen phthisis develop in a large proportion of those who had been active participants in these exercises.

DR. D. B. ST. JOHN ROOSA, of New York, said that while there are cases that do not require washing out of the pleural cavity, still there are others that do require it. There are cases in which the pus is mixed with flakes that will not pass through the canula or through an opening in the chest, a resection of the ribs being required in many such instances. When there are such flakes, the pleural cavity must be washed out, no matter what the condition of the pus. In cases where the amount of pus was large, and the lung partly adherent, the discharge of pus had rapidly diminished under this treatment. The operation should be done antiseptically, a rubber drainage tube introduced, and the wound dressed with antiseptic precautions. The next dressing should not be made for three or four days. The following dressing may not be required for a week. Under such treatment the wound heals very kindly, even where resection has been done.

In reference to Dr. Ely's paper, he said that there is a class of cases in which pulmonary gymnastics are of service. These are cases in which there is premature ossification of the cartilages, especially of the upper part. This condition can be benefited by pulmonary gymnas-

tics. In such cases there will be expansion, especially downward.

DR. FRAZIER thought that in many cases in which pulmonary gymnastics are resorted to, the lungs have reached the fullest development of which they were capable. The overstraining of lungs which are already sufficient for the needs of the system is harmful.

DR. SHERMAN said that in his case each washing out was followed by lowering of the pulse and temperature. After the second washing, the amount of pus discharged was merely nominal.

DR. F. A. CASTLE, of New York, described a simple method of pulmonary gymnastics which was suggested for the use of a boy requiring such exercise. This consisted in placing the pockets of the jacket under the arms, so that in order to get the hands into the pocket it was necessary to expand the chest. Again, in the male adult, a large proportion of the respiration is carried on by the abdominal muscles. For this reason it is desirable to avoid, as much as possible, overdistention of the stomach.

DR. ELY said that in the cases in which the measures described were employed he had seen no serious results, but he insisted that all such exercise should be under the control of a physician.

DR. HERMAN BENDELL, of Albany, read a paper on THE TREATMENT OF AURAL POLYPI BY THE INJECTION OF CARBOLIC ACID.

The favorite method of treatment of aural polypi has been by the wire loop and the subsequent application of caustics. One objection to this treatment is the hemorrhage which may ensue. The treatment he recommended was the injection of from two to five drops of a fifty to seventy-five per cent. solution of pure carbolic acid. This coagulates the blood in the part, and causes a slough. In some cases one application is sufficient, in others the application has to be repeated. The slough should be removed before the injection is repeated. This plan of treatment is easily applied, and is not followed by excessive reaction.

DR. ROOSA then read a paper on

THE RESULTS OF THE OPERATION FOR CONVERGENT SQUINT.

(See page 141.)

He stated that the tables would appear in full in the Society's volume of *Transactions*.

DR. HARVEY JEWETT, of Canandaigua, reported a case of

SPONTANEOUS EXPULSION OF A LARGE STONE FROM THE FEMALE BLADDER.

The accretion, before it causes serious inconvenience to the patient, becomes too large to be expelled through the natural channels, and cutting or crushing is the only alternative except in a few instances in females, where the dilatation of the urethra can be effected without doing violence to the parts.

Mrs. U., aged sixty-eight years, suffered for six years with incontinence of urine. In one of the intense paroxysms of pain she expelled a calculus measuring $3\frac{1}{2}$ by $2\frac{1}{2}$ inches in circumference, and weighing 186 grains. The use of the sound revealed another stone, which I removed with a strong pair of polypus forceps by dilating the urethra with my finger. This

stone measured 4 by 4½ inches in circumference, and weighed 395½ grains, or about 6½ drachms. This was accomplished without either laceration of the parts or hemorrhage. The bladder was carefully washed out with an aqueous solution of carbolic acid. Small gravel, with mucus, continued to discharge for six days; she was then put upon use of the Buffalo Lithia Water from the Virginia Springs. The concretions gradually diminished, and in about ten days entirely ceased, and at this date (five months after the removal of the stone) the patient is about the house, and in a comfortable condition of health.

AFTERNOON SESSION.

DR. HERMANN BENDELL's paper on the

TREATMENT OF AURAL POLYPI BY THE INJECTION OF CARBOLIC ACID,

was then announced as being open for discussion.

DR. T. R. POOLEY, of New York, had had no experience with the remedy mentioned. The chief objection raised to the snare was the occurrence of hemorrhage. He had never seen any trouble from hemorrhage. If there is bleeding, it can be readily controlled. Two objections arise to the use of carbolic acid in the tympanic cavity. First, the possibility of the occurrence of pyæmia and septicæmia, a result of absorption by the mouths of the vessels of the bone. Second, the application may give rise to inflammation, and the periosteum may be converted into connective tissue, thus interfering with the function of the organ.

DR. B. F. SHERMAN described a method which he had used with success in one case. The meatus was filled with polypi. They were dusted with tannic acid, and the operation was repeated every day or every other day; in ten days the polypi had sloughed and were removed by injection of water.

DR. W. F. MITTENDORF, of New York, claimed to have originated the carbolic acid treatment, having used it in 1881. This method he had limited to cases of large polypi present at the external meatus, and in which the patient had refused treatment with the snare. He has never seen serious results, but the application is painful and for the last few years he has resorted to the snare only.

DR. POMEROY said that the injection of polypi is painful and unnecessary. His method is to remove the polypi with forceps, and then touch the base with nitrate of silver fused on a probe. The canal is then filled with boracic acid. Most of the cases so treated have recovered without trouble.

DR. GEORGE R. FOWLER, of Brooklyn, read an elaborate paper on

NON-UNION OF FRACTURES; TOGETHER WITH A CONSIDERATION OF SOME MODERN METHODS OF TREATMENT,

at the conclusion of which he presented the following summary of his views on treatment.

1. In all cases of simple delayed union, the percussion method of Thomas, combined with an efficient retention apparatus, will be found to offer the readiest and most efficient means of bringing about union, provided this does not depend upon some dyscrasia. In cases of fibrous union, benefit may also be expected from this

plan, provided absorption and attenuation of the ends of the fragments, or eburnation, have not taken place.

2. Brainard's method of drilling the fragments, and this failing, freshening the ends of the bones and uniting the periosteum by either the method of Jurdain or Rydygier, combined or otherwise, according to the exigencies of the case, with wire suture of the ends of the fragments, should take the place of the old Dieffenbach operation. This should be done with a modified antiseptic procedure, and is applicable in cases in which the percussion method of Thomas has failed because of delay in instituting early treatment, and in pseudarthrosis.

3. Cases in which it is found impossible, because of excessive loss of bone substance, to unite the periosteum by sutures or to wire together the ends of the bones, should be treated by bone transplantation, under antiseptic precautions, either by the method of MacEwen, or that of von Nussbaum.

The following gentlemen were then introduced as

DELEGATES FROM THE CANADA MEDICAL ASSOCIATION:

Drs. T. J. Allen, Wm. Gardner, and James Stewart, all of Montreal.

THE COMMITTEE ON PRIZE ESSAY

reported that only one paper had been presented. It was on drug eruptions. While a creditable production, the Committee considered that it did not represent sufficient original research to merit the prize.

DR. PORTER, from the

COMMITTEE ON BY LAWS,

offered the following, which was adopted:

Resolved, That the following be added to Article I., Section 5, of the By-laws:

"All persons now eligible, and who have not been nominated as permanent members, shall inform the Secretary of this Society of their desire in this regard."

DR. A. HADDEN, of New York, then read a paper on

RHEUMATIC AFFECTIONS OF THE JOINTS.

He claimed that rheumatoid osteo-arthritis, often called rheumatic gout, is a disease distinct from either rheumatism or gout, and that the pathological changes are in the osseous structure of the joints. He held that the disease attacks persons who live chiefly on amylaceous and saccharine foods; and he stated that a similar disease, called "bone spavin," attacks the horse and other graminivorous beasts, while in all carnivorous animals and in birds no such disease is known. In the treatment of this disease, therefore, he recommended the substitution of nitrogenous for amylaceous and saccharine foods, and by this method he has obtained, clinically, the best results.

DR. T. R. POOLEY, of New York, reported

A CASE OF TUMOR OF THE MAXILLARY ANTRUM AND ORBIT,

the history of which will be published in full in an early number of THE MEDICAL NEWS.

DR. E. F. BRUSH, of Mount Vernon, in a paper on

INFANT FEEDING,

pointed out some simple methods of feeding an infant when it has been deprived of the breast. He urged the

claims of simple foods in preference to the so-called "patent foods," the composition of which is often unknown; he examined the constitution of the once famous "Liebig's Food for Infants," and of another popular food, and indicated the dangerous amount of alkali contained in them, citing Dr. Jacobi's warning that "we are not very careful in doses of alkali in general," and Dr. Stillé's remarks that alkaline treatment "lessens the amount of fibrin in the blood." He showed by the figures furnished by one of the advocates of peptonized food that the results of such feeding are not satisfactory.

Proceeding then to the immediate subject of his paper, he stated that one of the greatest elements of failure in the artificial feeding of infants is the desire to give one sort of food alone under all circumstances, and hence the prescription of patent foods. He advised, on the contrary, the preparation of foods from simple articles within reach to meet the requirements of each case as they arise. When there is failure with food thus prepared, the physician has at least a knowledge of the cause of failure.

Commencing this with the child at birth, Dr. Brush gave his formula for the best substitute for colostrum, and his further treatment if the cathartic effect is either excessive or defective. He then discussed the question, What is the best staple food? He answered unhesitatingly "cow's milk," which, however, is subject to many conditions that render it unfit, unless due care is exercised. In 1879 Dr. Brush had pointed out the difference between the milk of the ruminant and non-ruminant animals, as regards, particularly, the quantity and quality of the casein contained in them, and the difficulty experienced by the infant in digesting a milk intended for the calf. When an infant vomits a hard curd, the indications are that the milk must either be prevented from coagulating in the stomach, or coagulated and broken up before entering the stomach. He showed that it is unadvisable to use alkalies to overcome the tendency to souring in the stomach, and therefore preferred the latter treatment of coagulating and breaking up the milk before feeding it. In other cases, he recommended the addition of lime-water as the safest agent, as it does not, like other alkalies, keep the stomach in an alkaline condition, nor cause an acid condition of the intestines. In case of diarrhoea in children fed on milk, the indications are to stop the milk immediately. The milk is the cause of the trouble, and the milk is rendered unfit by the physical condition of the cow, such as oestrum, pregnancy, poisonous herbs, cruel treatment, and the like, to all of which sources many cases of diarrhoea in infants can be traced. In these cases of diarrhoea he recommended oatmeal-water, which his analysis convinced him is somewhat similar in composition to milk. He insisted on the necessity of the medical attendant himself preparing and teaching the preparation of these simple foods. In all cases, however, the child should be put back on its ordinary milk diet as soon as possible.

As regards the kind of cow best adapted to supply milk, Dr. Brush prefers the common red cow to the Jersey or fancy breeds. The latter are of a tubercular tendency, the fat in the milk is not sufficiently emulsified, and they are of higher nervous temperament, while the common cow, ordinarily, is gentle and a good

feeder. She should always be stalled, as in hay even the poisonous weeds lose their evil properties by volatilization of the poisonous principle. When milk is bought, that of one cow should always be avoided, as its composition is never uniform.

In cases of constipation, raw malt-water, carefully prepared, as a dilutant of the milk, is efficacious. In acute dysentery raw beef solution is to be recommended. In all cases of dysentery the food of the infant should be warm.

DR. A. JACOBI, of New York, referred to the fact that the difficulty with cow's milk is that it coagulates in hard curd. One method of overcoming this difficulty is that which he had adopted years ago. This consists in taking half a drachm of dilute muriatic acid, adding it to a pint of water, then adding this to a quart of raw milk, and boiling the mixture. This will keep a long time; and when it coagulates, it does so in small curds. This is well relished by healthy children, and also by children with gastric trouble. It is also of service in adults.

DR. JACOBI then read a paper on

PAPAIN OR PAPAYOTIN.

After referring to the chemistry of this substance, which is obtained by adding alcohol to the juice of the papaw plant, the physiological action was described. Its therapeutic effects were next considered. It has been found innocuous when taken internally; but when injected subcutaneously, it is followed by dangerous symptoms of paralysis of the heart and nervous system. Its effect has been compared to that of pepsin and pancreatin, with this exception, that it is effective in smaller doses. It is useful in alimentation.

Diphtheritic membranes are dissolved by it in a few hours. Several cases of diphtheritic deposit were described as showing the effects of this drug, one part to four of water and four of glycerine. In these cases the membrane was softened and dissolved, and disappeared within forty-eight hours. He exhibited specimens of egg, meat, and cheese digested by a solution of papayotin of the strength of 1 to 250.

DR. A. L. LOOMIS, of New York, then read a paper on

GÉNÉRAL ARTERIO-CAPILLARY FIBROSIS; ITS RELATION TO CARDIAC AND RENAL DISEASE,

which will appear in full at an early date in THE MEDICAL NEWS.

DR. H. R. HOPKINS, of Buffalo, has been working with the sphygmograph for a number of years. He has found high arterial tension in a number of cases as a functional disturbance. He has also seen high arterial tension precede for years the occurrence of albuminuria. In three instances he has seen high arterial tension in apparently healthy individuals followed in from six to eighteen months by Bright's disease. High arterial tension is readily diagnosticated by the methods of examining the pulse in vogue one hundred years ago.

DR. H. R. HOPKINS then presented a paper on

ULCERATIVE ENDOCARDITIS,

in which he referred to the labors of Osler and Rosenstein. The seat of this affection is, in the majority of cases, on the left side of the heart. It occurs at the seat

of impact of the valves. The disease may be primary or intercurrent. The primary cases are rare. The intercurrent affection occurs more particularly after scarlet fever, pneumonia, and pyæmia. When the disease results from pyæmia, particularly puerperal pyæmia, the location is likely to be on the right side of the heart, and the emboli are found in the lungs.

There is great difficulty in the recognition of the disease. It may be divided into certain types. A large number of cases are diagnosed as typhoid fever. The pyrexia, however, differs from that of typhoid fever. Rigors are more common, and sweats are more profuse. A second type is the pyæmic. Here there are rigors, profuse sweating, vomiting, jaundice, and sweet breath.

The symptoms referable to the heart are often absent. The symptoms referable to the brain are hemiplegia, aphasia, unconsciousness, strabismus, delirium, and convulsive movements. Symptoms affecting the skin are profuse sweating, occasionally jaundice, and usually an eruption petechial in character. The urine is frequently albuminous. The disease is generally attributed to the presence of a microbe which is found in the diseased spots and in the emboli. Illustrative cases coming under the author's observation were then narrated.

DR. LOOMIS stated that he had met with ulcerative endocarditis under three conditions: First, in rheumatic endocarditis of an exudative character, in debilitated and especially alcoholic subjects; second, in old valvular lesions; third, in acute cases of infectious endocarditis.

In regard to diagnosis, when a physician has seen one or two cases and is on his guard, the diagnosis is made without much difficulty. If the heart be watched, although there may be no murmur, there will be a peculiar action which he had never seen in any other condition. It seems as though the heart were stimulated to beat wildly. He had noticed this before the appearance of the murmur. After the murmur and the emboli appear, there is no difficulty.

DR. WILLIS E. FORD, of Utica, then read a paper on

THE EARLY MANAGEMENT OF CASES OF MENTAL DEPRESSION.

He thought that in the majority of cases a period of depression precedes the development of insanity and that many cases of grave insanity might be prevented by proper treatment. The cases may be divided into two classes: those in which there is intellectual perversion, and those in which the emotions are alone disturbed and there is no fixed delusion. In cases where the physician cannot secure the confidence of the patient, where there is a suicidal tendency requiring constant watching, and where careful attention cannot be had at home, the patient had better be removed to an asylum. Cases of mental depression, where the emotions are alone affected, where there are no delusions, are improved by diversion and by travel, and appropriate medical treatment. In some cases of sudden onset of melancholia, treatment by sedatives has been effective.

DR. J. M. BIGELOW, of Albany, then presented some

HINTS ON THE TREATMENT OF DIPHTHERIA.

He advocated the use of tincture of chloride of iron in fifteen drop doses with glycerine and water, muriate of

pilocarpin in one-twentieth of a grain doses every two hours, and twenty minutes later two or three tablespoonfuls of whiskey—the mouth to be cleansed with a two per cent. solution of carbolic acid, and a spray of lactic acid to be also employed. This treatment has been followed by satisfactory results in his practice.

EVENING SESSION.

MR. LAWSON TAIT, of Birmingham, forwarded a paper on

METHODS OF DIAGNOSIS,

which was then read. He maintained that the speculum and the sound, as means of diagnosis, have been productive of uniformly more harm than good. That a blennorhagic discharge from the vagina of any patient requires the introduction of a speculum, is one of the stock beliefs of the great bulk of general practitioners, but it is certain that nothing of the kind is requisite and a very large amount of mischief, there can be no doubt, has been produced by this belief. It is not at all an unusual thing for him, on taking part in a consultation with the family physician concerning some such case, to be told by him that he very much regretted that he had not made an examination with the speculum. Others have told him that they made the said examination, and when asked what they saw, or what they did, the answers usually given are that they did nothing, they merely made the examination; that is to say, they passed the instrument and with that proceeding were perfectly satisfied, evidently under the belief that the passage of the speculum was quite as much a curative agent as a method of diagnosis. Similarly with the sound, he had heard many practitioners tell of their experience with the sound, or rather their want of it, and he judged that they looked upon it as a sort of magical charm, the introduction of which into the uterus was to achieve unmeasured good. As a matter of fact, the sound is one of the most dangerous instruments which ever was invented for the treatment of human suffering, and in his own practice obtains hardly any employment at all.

There is a story which is told against himself by some of his colleagues which he never hesitates to repeat, because it is the kind of accident which is liable to occur to any one, and fortunately the only one of its kind which ever happened to him. It conveyed a lesson of which at the time he stood much in need, and from which warning may be taken with advantage. Many years ago he was asked by the surgeon of a large general hospital to give his opinion on the case of a young woman, who had been in the hospital for some months suffering from a pelvic tumor which seemed to threaten her life. She was hectic, suffering, and very ill. The tumor on one side of the pelvis was apparently quite fixed, and he expressed the opinion that it was a collection of matter, but in what position he could not say unless she would allow him to make use of the uterine sound. His surgical friend told him he could do exactly what he thought proper. He had asked for his opinion as a specialist and he would not interfere with any steps he thought fit to take for the purpose of furnishing him with that opinion. Mr. Tait immediately proceeded to use the sound and came, quite erroneously, to the conclusion that the patient was suffering from a parametric abscess. The sound passed, as he thought, into an empty uterus, fixed toward the right side, the uterus

being of normal length. Within twenty-four hours the patient miscarried of a fourth-month fetus, and this ended all her sufferings. She speedily recovered and left the hospital cured in a way which nobody expected, and which certainly he did not intend. All such accidents have by no means so happy an ending as this had, and their number is immense. But few months pass without his hearing of a case in which some kind of mischief has been done in this way.

One of the most important methods of diagnosis in abdominal disease, and the first to be considered in examining any case, is inspection. A careful examination, by the eye, of the contour of an abdomen when the patient is lying on her back, with the walls of the abdomen perfectly flaccid, will reveal a good deal to the experienced practitioner. A completely and uniformly distended abdomen may mean that the patient is suffering from peritonitis, intestinal obstruction, ascitic effusion, a parovarian tumor, an ovarian tumor, a large myoma of the uterus, or pregnancy. The process of discriminating between these various conditions may very rapidly be completed by one who is accustomed to deal with them. Thus peritonitis may be at once detected or eliminated by the presence or absence of the short and rapid pectoral breathing, which shows that the patient is loath to use her diaphragm. In fact, by this alone, and without almost any further inquiry, he has satisfied himself as to the nature of the case by a single glance. Ascitic effusion, on the other hand, is revealed at once by the absence of the pectoral breathing, by the greater flattening of the distention, by its tendency to assume a pyriform shape, the broadest diameter just above the pelvis, by the thickening of the walls due to anasarca effusion, and the presence of white lines in the skin of the flanks. If the crest of the ilium sticks out under stretched skin, the diagnosis is again almost complete without further inquiry. If, on the other hand, these subsidiary features are absent, and there be a uniform and complete distention, two conditions widely distinct may be suspected. These are parovarian cyst and hydramnios; and here, again, some very curious mistakes have come under his notice, some of which have had very ghastly results. Parovarian cysts after labor sometimes grow with astonishing rapidity. Hydramnios always occurs with twin pregnancies, and generally in unmarried women, who are, of course, disposed to conceal their condition, and mere inspection cannot be depended upon to discriminate these cases.

But inspection will help us very largely to detect pregnancy and myoma, for in these cases the distention is always greatest either at the middle of the tumor or at its upper part, differing in this way completely from ascitic distention; and here one of the most important agents in the diagnosis of abdominal diseases, palpation, comes at once to our assistance, and to the skilled fingers it ought not to take more than a few seconds to discriminate between any or all of these conditions. The percussion note, which is uniform in a case of peritonitis, will easily determine the condition which is present. One or two delicate touches of the fingers of one hand whilst the fingers of the other lie with the most gentle lightness on the other side of the abdomen, will determine the presence of fluid, and it is in this method of palpation that the skill of the practitioner

at once becomes visible. The inexperienced hands press firmly upon the walls and may be seen to move to and fro in an aimless fashion as though they were rocking a cradle. The gentlest and tenderest touch alone will reveal what is required. Measurements of the different diameters of the abdomen will teach in a few seconds the leading features which are present: first, that there is fluid; secondly, that it is, or is not, near the surface, being contained, or not, within a thin-walled cyst; thirdly, that there is one cavity, or not; fourthly, the probable character which it presents. The wave excited by gentle tapping is retarded or urged on by the more or less gelatinous nature of the fluid. All these conclusions are indicated with the utmost rapidity to the skilled fingers, and it is absolutely impossible to teach how this can be, save by the constant practice of the pupil. The parovarian cyst may be diagnosed entirely from one condition, that is, hydramnios, partly by its thin walls and partly by the fact to which he has alluded, that hydramnios is very easily detected. Ascitic fluid is revealed in the same way, and by the additional fact that here and there we get tympanitic percussion notes.

The large uterine myoma is defined by its firm sense of resistance and its uniform feel and pseudo-fluctuation, also by the fact that it has a smaller diameter at the base than at the middle or upper part. Pregnancy, the rock ahead to inexperienced practitioners, can be infallibly revealed by palpation. First of all, there is fluctuation due to the liquor amnii, and it can be easily detected, and this declares the cystic nature of the mass. If the hand be made to lie gently on the parietes for a few minutes a rhythmical contraction of the uterus, by which at one time it is hard as a cricket ball and at another soft as a cushion, will become perfectly apparent, and this is as infinitely more certain sign than the sound of the foetal heart or placental bruit. The foetal heart is a sound which may guide and sustain the practitioner in his conclusions, but it is so easily imitated by intestinal noises, and often so difficult to find, that it is not to be depended upon with certainty. The placental souffle is probably more easily recognized than the foetal sounds, but placental sounds are very often, in rapidly growing tumors of the uterus, so completely imitated that there is always a certain amount of doubt connected with them. But the relaxation and contraction of the uterus in pregnancy are points in diagnosis which, when once made apparent, can never be mistaken for anything else.

DR. W. GILL WYLIE then read a paper on

THE DISEASES OF THE FALLOPIAN TUBES.

which will appear in full in an early issue of THE MEDICAL NEWS.

DR. MUNDÉ, of New York, said that, as a rule, he agreed with the author of the paper. Mr. Tait had demonstrated that in his hands exploratory incision and laparotomy are comparatively safe procedures, but to inculcate the idea in the minds of general practitioners that the operation is unattended with danger is going too far. The operation of abdominal section will always be a dangerous one. So long as it remains a capital operation, it should not be lightly performed for the purpose of diagnosis when we have the power to make the diagnosis without it.

Mr. Tait had stated that bimanual palpation can be made with the patient on her back as well as when she is on her side. When the patient lies on her side all the movable organs will fall to the side, and the results obtained will not be correct. He did not approve of that method of making bimanual palpation.

In pyosalpinx there are two methods of operating. In movable pyosalpinx he thought laparotomy should be performed. When the dilated tube, filled with pus, is adherent to Douglas's pouch the diagnosis should be made by aspiration through the vagina. The tube should then be opened and a drainage tube introduced. In hydrosalpinx, he thought that no severe operation should be resorted to.

In those cases of muscular hypertrophy of the tube due to stenosis or atresia, the result of catarrh of its lining membrane, it is sometimes difficult to decide whether to operate or not. In some cases the patients complain greatly, are practically bedridden, and require operation. In other cases the pain is experienced only at the menstrual period, and these cases do not always require operation.

THE PRESIDENT, DR. VANDER VEER, believed that Mr. Tait's success was to be attributed to his experience, as he devoted his whole time to the subject of abdominal surgery. He did not think that the profession in this country, or in England, fully appreciate what is understood by the Tait operation. Mr. Tait holds that if any portion of the ovary or tube is diseased, the whole of the uterine appendages should be removed. He had seen cases illustrating the truth of this principle. He did not think that the position with the patient on the back is a good one for bimanual examination. With reference to the case described by Dr. Wylie, in which peritonitis ensued, Mr. Tait lays great stress upon such cases, and would probably operate, even if the patient seemed almost moribund. He insists on the thorough washing out of the abdominal cavity. This is one of his strong points.

DR. HAILES, of Albany, asked opinion in regard to the following case: A young woman, twenty-eight years of age, had died as the result of an injury to the leg, and an autopsy was made. An interesting condition was found: the uterus had been pregnant, the left ovary was in a state of cystic degeneration, and the size of a lemon. The right ovary was also diseased, and presented a thin-walled transparent tumor. During the examination the cyst ruptured. The question suggested was, what would be the effect of such rupture during operation.

DR. WYLIE said that three of the cases described were distinct cases of pelvic abscess. Some of them might have been opened from the vagina, but he felt it his duty to perform laparotomy, for there was an abscess above, which could not have been opened from the vagina. Dr. Hailes's case seems to have been one of cystic degeneration frequently met with in hysteria and hystero-epilepsy. These cysts rupture without producing serious results. He had ruptured them intentionally without harm resulting.

DR. P. R. FURBECK, of Gloversville, read a paper entitled *The Establishment of a State Board of Medical Examiners*. It was referred to the Committee on Legislation.

DR. J. A. S. GRANT-BEY, of Paris, France, communicated a paper

ON CHOLERA.

He held that when cholera appears in Egypt, it is the result of the germ having been imported, and that it is a specific disease characterized by violent vomiting and purging, with rice-water stools, cramps, prostration, collapse, suppression of urine, albuminuria, etc., tending to run a rapidly fatal course. It is essentially different from sporadic cholera, the difference being characterized by the presence of a germ (comma bacillus) in the former and its absence in the latter. Asiatic cholera is transmissible because this germ is a living organism, and transmissible in a live state. Much may be done to prevent its spread. Every epidemic rages amid filth. Personal cleanliness and house cleanliness are of vital importance. Nuisances of every description should be abated. Rooms, cellars, and water-closets should be whitewashed; the crowding of sleeping apartments should be avoided; thorough ventilation must be allowed. Food or drink injurious at ordinary times is doubly injurious in cholera season. Impure water is the most convenient vehicle for the cholera germ. To be quite safe, it should be boiled and carefully cooled before being drunk. Partially ripe fruit should be cooked before being eaten, and ripe fruit eaten raw should be washed before it is taken into the mouth. Temperance in eating, drinking, and exercise should be recommended. Thorough disinfection of the apartment in which a choleraic case exists, of the person of the patient, of the matter vomited and that discharged from the bowels, of all materials that have come in contact with these matters, and of the persons and clothing of the attendants, is of vital importance.

The best disinfectant is plenty of pure air. The germ of cholera becomes entirely inert in the open air, and this is the reason why it always travels along the routes of communication whatever the direction of the wind may be. Heat is a valuable disinfectant. Hence, if our food is well cooked and our drink well boiled, the danger of getting cholera through these is removed; and it is well to understand that the evidence in favor of the communicability of cholera by means of water and food contaminated with the cholera germ is now overwhelming. In addition to pure air and heat, sulphurous acid fumes, chlorine gas, and permanganate of potassa may be mentioned as valuable disinfectants.

At the commencement of an epidemic, cholera manifests itself without a premonitory symptom, and death takes place in a very few hours; but ordinarily there is a premonitory diarrhoea, the stools being copious and watery, followed by great prostration of strength.

If judiciously treated, many persons recover from this, *the first stage* of cholera; but, if neglected, the disease grows rapidly worse; the stools, becoming more frequent, have the appearance of rice-water; vomiting now commences, and prostration is complete. There are intense thirst and severe cramps in the limbs, and the voice becomes husky and the pulse imperceptible. The duration of this, *the second stage* is very uncertain, but the weaker the pulse becomes the nearer the patient is to the *third stage*, or that of collapse, from which few recover. Those who recover, however, often succumb afterward to some of the complications set up

by the primary disease, such as suppression of urine, inflammation of stomach and bowels, etc.

In the first stage of epidemic cholera we endeavor to stop the purging, and here opium is our sheet-anchor. The best way of exhibiting it in cholera is the preparation known by the name "Tincture Chloroformi cum Opio (Kirby)" (R. Tinct. opii, 3ss; spt. camphorae, 3ss; tinct. capsici, 3ss; chloroformi, 3ss; spt. vini rect. ad. 3iss. M.), of which twenty drops for an adult and five drops for a child should be given in half a wineglassful of water or chamomile tea every hour or two till diarrhoea ceases, and no nourishment given except beef-tea or chicken soup and rice. If the diarrhoea is not checked and vomiting commences, the "Anticholerique selon Pasteur" (R. Hydrgarg. bichlor, gr. ij; spt. chloroformi, 3x; spt. camphorae, 3x; tinct. lavand. co., 3ss; spt. vini rect. ad. 3ij. M.) should be used and the other medicine omitted. This "Antichlorique" contains the ingredients for killing the germ of the disease and for stopping the diarrhoea, vomiting, and cramps, while it stimulates the heart and favors a general reaction. It is very hot and biting, and has, therefore, to be mixed with a sufficient quantity of water or chamomile tea to make it palatable. The dose is a teaspoonful for an adult and a half a teaspoonful for a child or young person, in a wineglassful of water, every quarter of an hour, every half hour, every hour, and so on according to the urgency of the symptoms.

Mustard poultices may now be applied over the abdomen, and mustard with a little olive oil should be rubbed up and down over the cramped muscles. Thirst should be assuaged by means of ice, which is very agreeable to the patient, while giving water to drink *ad libitum* would only hasten death. The ice should not be stinted, but the patient allowed to eat as much as he chooses; he will frequently devour a pound or two of ice in the course of an hour. In the treatment of cholera, there can be no question about the value of ice. The patient should be prohibited from drinking water, except that from the melting of the ice or that in which he takes his medicine. Warm chamomile tea, however, may be given in small quantities, from time to time, to soothe the stomach and allay vomiting.

In the stage of collapse heat and friction may be applied with advantage to the surface of the body, and the patient given some chamomile tea, or even iced water, to drink. Wine and stimulants at this stage do harm instead of good; therefore, they must on no account be given.

When reaction comes on, guard against doing too much. Iced milk or arrowroot or weak beef-tea may be administered by the rectum every six hours, in case of great prostration. Many nostrums have been put forward for the cure of cholera, and in 1865 they were all faithfully tried and found wanting.

In conclusion, Dr. Grant's opinions about cholera may be briefly stated thus: Cholera is caused by a living organism the habitat of which is the Delta of the Ganges, just as the habitat of the hippopotamus is the upper Nile. All attempts on the part of this organism to form new habitats have failed; at least so far as Egypt, Europe, and America are concerned. Were a hippopotamus met with in the Hudson River, it would at once be concluded that it had come from its well-known habitat or had escaped from a menagerie that had originally got

it from the Nile. As our great scientists, Tyndall and Huxley, have renounced the idea of spontaneous generation, the same reasoning that is applicable to the hippopotamus is equally applicable to the lowest living organism whether animal or vegetable. The cholera germ, being a living organism, is transmissible in a live state. In Dr. Grant's opinion, this organism has different stages of development, and it is not capable of inducing a choleraic attack except at a certain stage of its existence. Hence recent choleraic stools are not contagious, but stale ones are highly so. Epidemic cholera differs from sporadic cholera in many respects:

1st. The difference implied in the names.

2d. In sporadic cholera we have generally a history of indigestion occurring in a spell of warm weather.

In epidemic cholera, on the other hand, we have no such clew to the malady; but on tracing it, find that it has come from a port or frontier town that has been in communication with an infected district, and on further inquiry it will be found that every epidemic of this disease, outside India, has been preceded by a recrudescence of it in India.

3d. Sporadic cholera is more a summer disease, appearing when fruit is ripe, while season has little or no influence upon epidemic cholera.

4th. Sporadic cholera, although often attended by partial suppression of the urine, is not accompanied by albuminuria,

5th. Sporadic cholera is not followed by a typhoid state, as is epidemic cholera,

6th. In sporadic cholera there is not the comma-bacillus of Koch. Whether this organism is the cause or effect of epidemic cholera, it is at least diagnostic of it, and if we can prevent its development we shall extinguish the disease which its presence indicates. If we were to prevent the thunderstorm the milk would not sour, but let the thunderstorm work its worst, and ply our knowledge to prevent the development of the bacterium lactis, and when we have achieved that, we shall be able to preserve our milk from souring, even in unfavorable electrical conditions, if the bacterium is the immediate cause of the souring.

7th. In sporadic cholera followed by death the mucous membrane of the bowel shows that inflammatory action has commenced at the stomach and extended thence down into the bowel.

In dry cholera, on the other hand, followed by death, the mucous membrane of the lower part of ileum for about two feet above the ileo-caecal valve is found particularly congested, almost pink in color, while the rest of the mucous membrane may be perfectly normal in appearance.

8th. Sporadic cholera is not in any sense a contagious disease, and is not, therefore, imported into the locality where it exist, but takes its origin on the spot from the causes alluded to above.

Epidemic cholera, on the other hand, is always brought to a non-infected locality by cholera patients, or by articles that have been soiled with the dejections of cholera patients.

9th. Epidemic cholera is very fatal, while sporadic cholera is not.

Dr. Grant's explanation of the cause of death in epidemic cholera is somewhat as follows:

Immediately above the ileo-caecal valve there is a

decided slowing of the downward movement of the contents of the small intestine, and a partial check at the valve itself, by ascent of fecal matter from the cæcum to the ascending colon. This affords time for the development and multiplication of the cholera bacillus, the spores of which had been swallowed and had retained their vitality, while the swallowed bacilli themselves had perished in the acid juice of the stomach. Be this as it may, it has been demonstrated that at the ileo-cæcal valve, and for some little distance above it, is found the chief seat of the cholera bacillus.

At this particular part of the bowel absorption is more active than at any other part, proving that here must be a larger supply of the delicate nerve network that exists in the wall of the intestine. The facility afforded at this part for the absorption of ingredients that had been left unabosorbed by the upper part of the bowel, no doubt also favors the penetration of the cholera bacillus. A mechanical irritation, therefore, of the fine layers of nerve network, is set up by this organism, the result being collapse and death, such as we have in fatal strangulated hernia. The secretion of a special poison, or the production of a ptomaine by this bacillus, is not, in his opinion, necessary to account for death.

The ganglionic system of nerves is simply disturbed through the local irritation caused by the active presence of this organism. The control over nutrition is lost, the doors are thrown wide open for exosmosis, and thus endosmosis is prevented. All the organs immediately under the control of the sympathetic system are nearly paralyzed in their action, or very much disturbed. The blood, from loss of serum, becomes thick and unfit for circulation, and the heart refuses to act, and, therefore, ceases to beat.

WEDNESDAY, FEBRUARY 3.—SECOND DAY.

MORNING SESSION.

The Society was called to order at 10 A.M.

The Committee on By-laws reported against the approval of the by-law of the New York County Society providing for

EXPULSION FOR NON-PAYMENT OF DUES.

A motion to lay on the table having been made and lost, the report was accepted.

DR. DERBY, on behalf of the committee to consider the question of the existence of

CONTAGIOUS EYE TROUBLE IN CHILDREN'S ASYLUMS

of New York and its vicinity, reported that careful examination showed that thirty-two per cent. suffered from such troubles, and presented a bill providing that every incorporated institution for the care of children shall have attached to it a regular physician, who shall carefully examine all children applying for admission, and give a certificate stating whether the applicant is suffering from any infectious or contagious disease, especially of the skin or eyes. Any such child shall not be allowed to enter the institution, but shall be confined in an infirmary. It is also made the duty of the physician in attendance to give notice in writing, to the proper authorities, whenever any dormitory shall be overcrowded, so that there shall be less than six hundred cubic feet to each individual.

The State Society indorsed the bill, for the purpose of aiding its introduction into the Legislature.

THE REPORT OF THE TREASURER

showed a balance of \$467.00.

DR. A. R. SIMMONS, of Utica, presented a paper on

ACUTE NEPHRITIS, ESPECIALLY AS FOLLOWING DIPHTHERIA.

In diphtheria, he said, nephritis results from the products of the disease within the first eight days. Irritant remedies are to be avoided; mercury must be used with care. The indications for the treatment are to relieve congestion of the Malpighian tufts, to reduce the thickened mucous membrane, and to carry off the epithelial débris. Two general plans of treatment may be pursued. One to increase the excretory action of the kidneys; the other to act on the other excretory organs, viz., bowels and skin. A combination of these methods is the best plan. Irritant diuretics and nitrogenous food should be avoided. He concluded his paper with a series of illustrative cases.

DR. WESLEY M. CARPENTER, of New York, read

A CLINICAL NOTE ON ALBUMINURIA AND GLYCOSURIA, in which he directed attention to a few clinical features present in two cases which had fallen under his observation.

Case I. was a woman, aged fifty-five, a patient of Dr. Avery, who had been in good health up to one year previously, when she noticed that on some days she passed more than the usual quantity of urine. No other symptoms were developed until it was noticed that her face was swollen under the eye; swelling of the feet soon followed, with difficulty of breathing, and Dr. Avery detected the physical signs of œdema of the lungs. The symptom for which his advice was sought, was the sudden development of difficulty in breathing. At that time the œdema of the feet and face consisted of only a puffiness about the eyes and a moderate swelling about the ankles. Dr. Avery found that the urine contained sufficient albumen to solidify nearly its entire bulk. The specific gravity was 1.010, and the quantity was diminished. Microscopical examination by Dr. Carpenter revealed casts of nearly all varieties except blood, and in very great abundance.

A full dose of elaterium was administered, which operated freely. This was followed by the use of nitro-glycerine, one drop of a one per cent. solution, three times a day. The urine was examined chemically twice daily, and microscopically once a day. At the end of two days only a trace of albumen could be detected. The specific gravity was 1.017, the quantity was nearly normal, and it contained only a few casts. At the end of a week both albumen and casts had disappeared entirely. The nitro-glycerine had been continued, but at the end of two weeks its administration was interrupted with intervals of three or four days, and at the end of two months the remedy was discontinued. Examination of the urine was repeated at intervals, from this time on, but with negative results.

At the end of three months it was noted that the specific gravity was above 1.020, that the quantity had increased considerably, and it was then tested with Fehling's solution and revealed distinct evidence that it

contained sugar. From that date forward, now nearly two years, the patient has exhibited some of the ordinary phenomena of diabetes mellitus, the quantity of sugar varying according to the rigidity with which the prescribed diet had been adhered to and the regularity with which the arsenite of bromine had been taken. Albumen has not reappeared in the urine, and the general condition of the patient has remained fair.

The chief points of interest in this clinical history are, first, the well-marked symptoms of kidney disease; second, their rapid disappearance under the influence of nitroglycerine; and, third, the appearance of glycosuria, which has thus far remained permanent.

Albuminuria occurs not infrequently with glycosuria. Senator has expressed the opinion that under such circumstances the albuminuria is not to be regarded as evidence of Bright's disease, and that it indicates merely a swollen and slightly granular condition of the renal epithelium. In the case reported, however, it seemed evident that changes existed in the kidneys far beyond a simple swollen condition and granular degeneration of the epithelium of the uriniferous tubules.

Another question which arises is, Did not the glycosuria precede the kidney affection? The facts that the albuminuria disappeared entirely, and that the urine has not since contained casts, favor the view that this conclusion is not unreasonable.

Case II.—In June, 1885, Dr. X. gave Dr. Carpenter an accurately recorded clinical history of his own case for one month, in which it was found that the urine contained sugar, but in general the patient had not suffered any special inconvenience on account of its presence. The interesting feature of the case pertained to the diet. The patient, immediately on discovering sugar in his urine, restricted himself to the usual diabetic diet, and the result was the prompt disappearance of sugar from the urine according to Fehling's test. The first compromise consisted in eating gluten bread, when he found that within two hours after he had taken it sugar was present in his urine. This experience agrees with that obtained by a large percentage of those who have eaten diabetic bread bought at some of the more popular establishments. From this point the patient began to experiment with reference to his diet. He soon discovered that watermelons could be taken without being followed by sugar in the urine, and he therefore ate them very freely and with evident benefit. He also learned that he could eat raw peaches without limitation and with impunity. The doctor also discovered that ingestion of any of the cereals except buckwheat was quickly followed by sugar in the urine. He has been able during the last six months to eat buckwheat cakes without detriment, but recently he has noticed that their ingestion has been followed by a slight trace of sugar in the urine.

The most noteworthy fact concerning his diet is that potatoes do not produce sugar in his urine. This article has been particularly prohibited in diabetic diet lists. Doubtless in most cases its use is detrimental. Occasionally, however, cases have been reported in which potatoes have been eaten without being followed by sugar in the urine. Why the potato starch does not produce this effect while the starch in the cereal does, is still a question. Such cases verify the statement of Pepper, that the governing principle is that starch and sugar should be excluded from the diet of diabetics,

but at the same time no inflexible rule applicable to every case can be made.

This patient has used arsenite of bromine, with restricted diet, and his general condition remains good.

In connection with the examination of the urine by means of Fehling's solution, Dr. Carpenter directed special attention to an additional step in its application proposed by Seegen, of Vienna, who had described a method by which he claimed to be able to detect sugar in the urine when it could not be detected by the tests ordinarily made. The method has been revived by Dr. McBride, of New York, who was aroused to its importance by a personal interview with Seegen and by seeing it applied. The method is as follows: Take, for example, a specimen of urine from which sugar cannot be precipitated by Fehling's solution. Filter this urine through *blood charcoal* (not ordinary animal charcoal), then wash the filter with distilled water, and test the third and fourth washings with Fehling's solution, and if sugar is present it will be detected readily.

The explanation is that the urine contains certain substances which are capable of holding sugar in chemical combination, that these substances are detained in the filter, and that by repeatedly washing the filter with water they are made to release their control over the sugar and allow it to be precipitated by the copper test.

DR. C. WEY, of Elmira, read a paper on

MEDICAL TESTIMONY AND THE HYPOTHETICAL QUESTION.

in which he deprecated the present condition of expert testimony. One expert is contradicted by another equally competent expert. The charge that medical experts are hired advocates is capable of proof. The opinions of scientific physicians are often offset by those of local physicians of less attainment. Physicians and lawyers agree that the present system should be abandoned. Dr. Wey favored the selection of an expert or board of experts by the Court or by the Governor.

A hypothetical question, he said, may be based upon acts which are entirely separated from their surroundings, giving them entirely different significance, and based upon exceptional conditions of the individual. Every one's conduct is at periods open to the danger of hypothetical questions.

DR. B. F. SHERMAN said that this is a question of great importance, and one which is neglected by the profession. The expert should be free from the bias of being employed by one or other party. He should be the witness of the Court. In many questions scientific evidence is stronger than that of supposed eye-witnesses. While what Dr. Wey says is true with reference to hypothetical questions, yet the opposing counsel have an opportunity to correct any misrepresentations which may be made.

DR. WALTER B. CHASE, of Brooklyn, read a paper on

ANTISEPTICS IN MIDWIFERY.

He held that vaginal injections during the progress of labor are harmful by washing away the mucus which coats the vagina, thus retarding labor and increasing the danger of laceration of the cervix. Subsequent to labor the injection is not required and may unnecessarily irritate the patient and may even enter the uterus and the peritoneal cavity. Pyæmia and septicæmia do

occur sometimes where injections are not used, but that they are the result of their omission is not proved. The conditions under which antiseptics are to be used were then stated. The pregnant woman is to avoid all contagious diseases. If exposed to them, she should immediately change her clothing and bathe herself with an antiseptic solution. The physician, if exposed, should act in the same way. Instruments are to be treated with antiseptic solutions. Antiseptic injections should not be used in normal labor until its termination. In complicated cases, maceration of the fetus, etc., their use may be indicated. In cases of retained placenta, laceration of the cervix or perineum, injections may be required.

DR. LUCIEN HOWE, of Buffalo, then read a paper on *The Recording of Cases.*

DR. E. L. KEYES, of New York, read a paper on

THE TREATMENT OF VARICOCELE AND HYDROCELE, in which he advocated subcutaneous ligation with catgut. He uses two different forms of needle, according to the character of the cases. One has a lance-shaped point, the other a hypodermatic-needle point of the size of No. 4 catheter, French gauge. These have long eyes near their points. Thorough antiseptic precautions are employed. Ether cannot be given, as the patient must be erect. Hypodermatics of cocaine may be used. The patient stands in a good light, the veins are separated high up from the rest of the cord, and are pressed toward the thigh. The needle is armed with catgut and silk loop, and thrust through from before backward between the veins and the remainder of the cord. The end of the catgut is drawn out posteriorly, and the needle is withdrawn from the posterior opening until it can be placed in front of the veins, and brought out again through the posterior opening and the catgut threaded in the loop and withdrawn. A few fibres of the dartos are included in the ligature, and are broken by drawing on the scrotum. The catgut is then tied in a triple knot. The patient is confined to his house for forty-eight hours. This operation has never been followed by any complication, and has always resulted successfully.

In the treatment of hydrocele, he highly endorsed the method of carbolic acid injection introduced by Levis, and described the method of injection which he employs. He uses a glass syringe, holding one hundred minimis, and fitted with a hypodermatic needle. If the hydrocele is small, the needle of the syringe is thrust in and fluid drawn off. The syringe is then washed, the needle being left in. Pure carbolic acid deliquesced by glycerine is drawn into the syringe, and thirty to sixty minimis injected. The after-treatment is regulated by the degree of inflammation. If the hydrocele is large, the needle not attached to the syringe is introduced, to be sure that it is in the cyst. An aspirating needle is now introduced, and the fluid withdrawn. The carbolic acid is then injected through the hypodermatic needle. The operation, in his hands, has given most satisfactory results.

DR. V. P. GIBNEY, of New York, then presented a short paper entitled

LESSONS FROM THE MANAGEMENT OF CLUBFOOT, and for the convenience of the discussion directed attention to (1) the abuse of tenotomy. He claimed

that tenotomy is indispensable in the management of certain forms of clubfoot, and that it is abused by failing to make a complete division of the tendon or tendons proposed, by the failure on the part of the operator to correct the deformity after the operation in congenital clubfoot; by too much correction in paralytic cases; by redividing tendons through cicatrical tissue, and by incomplete after-treatment. He advocated immediate redressment in congenital clubfoot, even to the point of over-correcting the deformity.

In paralytic clubfoot, his custom is to delay redressing the deformity until ten days have elapsed, and then to stretch, gradually, the new tissue formed between the severed ends of the tendon. Many failures are due to the lack of long continuance of apparatus, and the failure to keep said apparatus in repair. In his experience the only cases in which calcaneo-varus has followed a tenotomy for equinus were those where the limbs were in spastic contraction.

(2) He made a strong plea for the early treatment of clubfoot, for the reason that cases can be more easily managed; secondary bone and muscular changes will not take place, and the child will have no vicious habits to correct after it begins walking. To carry out early treatment, the assistance and coöperation of the mother or nurse are very important. The first step in treatment, at this early age (from three to six weeks), is to overcome the varus, without any effort whatever to correct the equinus. The correction of the varus is not alone sufficient, but the foot must be brought to an *equino-valgus* before the second stage begins, namely, the correction of the equinus. The division of the tendo Achillis is essential to the relief of the equinus.

(3) He expressed very little faith in "rapid cures," especially in very young children, or in those cases where resort is not had to tarsoclasis or tarsotomy.

(4) By tarsoclasis he meant the forcible breaking down of all obstructions by manual or instrumental force, with or without the employment of division of tendons and fascia, subcutaneously or by the open method. He presented Dr. Bradford's tarsoclast and limited its use to resistant and inveterate cases between six and sixteen years of age. As a dressing after operative procedures, he advocates the plaster-of-Paris bandage, where suitable apparatus is not convenient; this gives the surgeon an opportunity to secure the necessary apparatus at his leisure.

If tendons or fascia are to be divided in the plantar region, he advocates a modification of the open method as practised by Phelps. This open method is applicable to a certain class of cases, and he concluded his paper by calling attention to the importance of a proper classification of cases from a therapeutic standpoint, and deprecated the idea of subjecting every case of clubfoot to a single method of treatment. Success, he claimed, depends more upon the management of a case, and especially the management of the after-treatment, than upon any special method devised.

DR. PHELPS stated that his rule in tenotomy is to put the foot on the stretch, and divide the part that first offers resistance. The neck of the bone is to be divided last. He exhibited drawings illustrating the dressing of clubfoot. When the treatment is begun, elastic force should not be employed.

AFTERNOON SESSION.

THE COMMITTEE ON THE PRESIDENT'S ADDRESS

reported that the recommendation with reference to permanent members had been acted upon by the adoption of a resolution offered yesterday. It recommended that the names of such permanent members be announced to the Society, and, if no objections were made, that they be elected by the Society.

The recommendations of the Committee were then taken up seriatim.

DR. ROOSA moved to make the necessary amendment to the By-Laws, with the amendment that, if there be any objection, it shall be referred to the Committee on Ethics. Adopted.

With reference to meeting on alternate years at some other place than Albany, the Committee recommended no change. Adopted.

With reference to the honorary degree of Doctor of Medicine, no recommendation was made and no action was taken.

The Committee emphasized the President's position with reference to the bill for a State Board of Medical Examiners. Adopted.

The Committee recommended that the President-elect be authorized to appoint the Permanent Business Committee as soon as possible. Adopted.

The report of the Committee on Communication from the New Jersey State Medical Society was adopted.

DR. PORTER moved that the President nominate a Special Committee to report at the next annual meeting what changes, if any, should be made in the number and terms of delegates from County Societies and other organizations.

DR. R. F. WEIR, of New York, then read a paper on

THE ANTISEPTIC IRRIGATION OF JOINTS FOR CHRONIC SEROUS SYNOVITIS.

He was convinced that this is an excellent method of treatment in chronic serous synovitis. It can be used in hydrops articuli. He recommended it in simple synovitis which resisted treatment longer than a month. The puncture is made at the inner or outer side of the synovial pouch, counter-pressure being made on the opposite side. This should be done with a large canula to permit the escape of flocculi. The joint is then irrigated with a 1:20 solution of carbolic acid from a fountain syringe. The fluid flows off, and the injection should be repeated until it returns clear. The canula is then withdrawn and the wound treated antisepically. Moderate reaction occurs, which subsides in a short time. A posterior splint is then applied, which is removed in ten days. Where the joint affection occurs in zymotic diseases corrosive sublimate solutions have been preferred by some. Seven cases were described.

DR. GERSTER said that he had found a five per cent. solution of carbolic acid useful in chronic hydrops for its irritant action. Where the contents are turbid and evidences of inflammation are present, corrosive sublimate solution, he thought, is better than carbolic acid. Where flocculi were present he had found it necessary to make an incision to remove entirely all the contents of the joint.

DR. WILLIAM HAILES, of Albany, read a paper entitled

WATER ANALYSES,

in which he described the results of the examination of water from springs, rivers, and wells of the State, with reference to their effects on culture material.

DR. W. F. MITTENDORF, of New York, then read a paper upon

REMOVAL OF A PIECE OF IRON FROM THE INTERIOR OF THE EYEBALL,

by means of a counter-opening. A man who was employed in drilling holes was struck in the eye with a piece of iron from a hammer. The piece of iron passed through the upper lid of the left eye and entered the globe near the inner canthus. The ciliary body and lens were uninjured. The ophthalmoscope showed a partially cloudy vitreous. At the lower part of the vitreous a triangular opening was made through the sclera, which was followed by the escape of a brownish fluid. The point of a permanent magnet was introduced, but without success. The iris forceps were then introduced and a piece of iron removed. Mild iridocyclitis followed, but the patient left the hospital ten days later, being able to count fingers at several feet.

DR. ROOSA thought it important to reaffirm the truth, that the danger of sympathetic inflammation is not passed when the foreign body is removed. It is good practice to remove the body when it can be done without too much injury.

DR. NOVES, of New York, reported three cases in which he had used powerful electro-magnets, and from his experience he drew the following conclusions:

When a foreign body is to be removed by the magnet, it is not always best to explore the wound. The incision should be in the equator of the eye, and better in the lower hemisphere. The incision should be large enough to permit removal of the foreign body. If the first attempt is unsuccessful, a second attempt some weeks later may be successful, from the effect of the processes of absorption. In rare cases sight is saved. In successful cases the ball is saved and is not as great a source of danger as it was before removal.

DR. L. D. BULKLEY, of New York, read a paper on

UNUSUAL METHODS OF ORIGIN OF SYPHILIS.

His conclusions were: 1. Syphilis is not necessarily a venereal disease, but in a considerable proportion of cases it is acquired innocently, and often in a most unexpected manner. 2. The failure to obtain a venereal history, or evidences of local sores on the genitals, past or present, need not prejudice the diagnosis of a doubtful syphilitic lesion. 3. The syphilitic poison need not be acquired from any known source; the virus is capable of indefinite preservation, and may be communicated in a mediate manner, even through long distance and after some period of time. 4. Non-venereal chancres have frequently been treated and even excised as epitheliomata. 5. Non-venereal syphilis, so far from being mild and to be slighted, often exhibits great malignity.

DR. FESSENDEN N. OTIS, of New York, read a paper entitled

THE LIMITATION OF THE CONTAGIOUS PERIOD OF SYPHILIS IN RELATION TO MARRIAGE, ETC.

He first referred to the literature of the subject. Syphilis, he said, is never communicated directly from the

father to the fetus. The mother must be infected. The semen is innocuous. There is no well-authenticated case of communication of syphilis, after the active or secondary stage. When the accumulation of all material causing the lesions of the secondary stage has been eliminated, the disease is no longer contagious. The tertiary symptoms are not necessarily syphilitic, but sequelæ. He considers it absolutely proved that lesions of the tertiary stage are not contagious; that there is possibility of spontaneous cure of the contagious stage; and that the limit of the contagion may be fixed at a period of five years.

DR. D. H. GOODWILLIE, of New York, then read a paper on the

TREATMENT OF TERTIARY SYPHILIS OF THE NOSE, MOUTH, AND THROAT.

He held that diet and hygiene are to be carefully regulated. While mercury is valuable in the early stage, it is not useful in the treatment of the sequelæ. Iodide of potassium is beneficial if properly employed, but if pushed too far it may be injurious. For the removal of diseased bones, he uses a revolving burr. He presented a number of drawings and models of cases operated upon, and exhibited an electro-motor and storage battery for operating the burr.

DR. C. R. AGNEW, of New York, presented a paper

ON THE HYGIENE OF THE EAR,

based upon the records of more than 2800 cases. The great frequency of diseases of the middle ear emphasizes the importance of the hygiene of this region. Out of 2844 consecutive cases which came under his observation, 2183 were of diseases of the middle ear.

EVENING SESSION.

THE PRESIDENT, DR. A. VANDER VEER, of Albany, delivered

THE ANNIVERSARY ADDRESS.

He chose for his subject *The Water-supply of our Cities and Villages*, and the conclusions he presented were that we should, if possible, procure water, if needed for domestic uses, first by gravity and from mountain streams, lakes, or springs; next, if the former is not possible, then, the surroundings being safe and proper in every respect, by the Gang siphon driven wells. Next by a system of storage, but so arranging the reservoirs that proper aeration can be employed; and lastly, if necessity compels and it must be taken from sources known to be polluted, then a thorough system of filtration should be employed, and the water as completely oxygenated as is possible before distribution.

THURSDAY, FEBRUARY 4.—THIRD DAY.

MORNING SESSION.

After prayer, by Father Terry, the Committee on Hygiene reported progress.

DR. D. B. SIMMONS, of Poughkeepsie, read a paper on

LEPROSY IN JAPAN.

The disease, he said, is confined to no class, and affects both the rich and poor. Those with light complexion, blushing easily, appear most likely to be affected. In the children of those affected a light

color of the retina has been noted; and in confirmed cases there is hypertrophy of the right heart. The disease is regarded by the people of Japan as essentially hereditary. He earnestly opposed the idea of infection.

DR. BELL thought that in Minnesota and Wisconsin, where Norwegian colonists have settled, there should be sanitary regulations enacted to prevent the intermarriage of persons in whom this disease is hereditary, and thus to prevent its appearance in this country.

DR. WILLIAM H. BAILEY, of Albany, read a paper on

THE TREATMENT OF HEMORRHOIDS IN PREGNANCY,

He referred to the frequency of the condition and the absence of reference to it in the text-books. In reference to its treatment before confinement, he advised regulation of the bowels with a pill of aloes, hyoscyamus, and ipecac; after confinement, with a mixture of sulphate of magnesia, carbonate of magnesia, and sulphur. In cases in which the hemorrhoids are pressed out, he uses warm fomentations.

DR. ELY recommended in those cases in which the hemorrhoids tend to protrude, the use of a rubber bandage passing between the thighs and secured to a muslin bandage passed around the waist. This may also be used in males.

DR. W. H. THOMSON, of New York, then read a paper on

THE PREVENTION OF HEMIPLEGIA.

He said that the impending danger may be recognized long before it occurs. The subject of prevention was taken up under the head of the three forms of embolic, syphilitic, and vascular hemiplegia. The embolic form cannot be prevented, except in so far as attention to the condition of the heart is concerned. The syphilitic form is preceded by and accompanied with headache and partial and varying paresis. Hypodermatic injections of corrosive sublimate were recommended for the removal of the perivascular inflammation. If the temporal artery be prominent, it indicates obstruction. The artery may become prominent by overdistention or from changes in its wall. If there is obstruction, the pulse becomes hard and long in its vibration, and this gives a deceptive feeling of strength, the pulse being incompressible. In the urine, unfavorable conditions are absence of color and low specific gravity. If the paleness of the urine is due to a nervous cause, it has no significance. In albuminuria with good color and average specific gravity, there is not much danger of hemiplegia.

An important element in the causation of hemiplegia, is the sudden increase of blood-pressure. The indications for treatment are, first, the employment of measures to lessen arterial tension; second, prevention of the accumulation of blood poisons by means of free respiration in the open air; and, third, removal to a mild climate. Chilling of the surface is to be avoided by use of suitable clothing. Much food should not be taken at any one time. From midnight to sunrise is the most dangerous period of the twenty-four hours. Excess of nitrogenous food is to be avoided. Fermented milk, prepared by the Arabian method, was recommended, also fish and vegetables. Abstinence from alcohol was most strongly advised and it was stated that tobacco should be avoided. Of medicines, small and repeated doses of corrosive sublimate, one-thirtieth of a grain,

were recommended. Benzoate of sodium was stated to be useful in lowering arterial tension.

DR. F. C. CURTIS, of Albany, then read a paper on

RINGWORM OF THE SCALP,

with special reference to its treatment. In private practice, this disease is generally very amenable to treatment; under the use of depilation (which is feasible where the involved area is small), daily scrubbing, and a mild parasiticide. But in asylums and children's hospitals, the large number of cases usually affected makes individual treatment less easy, and the atmosphere and the surroundings of so many affected with it make it much more intractable. In a recent outbreak in a children's hospital, several remedies were sought which would be effective without the tedious work of depilation. Oleate of copper was first used, but it was found of no value. Then several methods of using chrysophanic acid were tried; in a ten per cent. solution with liquor guttae perchæ, as proposed by Dr. Alexander, painted on after shaving, and freshly applied every week, it was found but slightly irritating and moderately effective, a few being cured and in most the intensity of the disease being lessened; a one and one-half drachm to the ounce ointment, applied after shaving and the spots then strapped with adhesive plaster, was effective in cases in which the areas affected were not too extensive. A seven grain to the ounce solution in chloroform was used with depilation after other remedies had been employed, and by it a number of cases were cured. In a proportion of the cases it was found possible to eradicate the disease without depilation by chrysophanic acid and the air-tight application first mentioned. In those cases in which the disease remained intractable, the chloroform solution and an ointment of carbolic acid and red oxide of mercury, with depilation, effected the final destruction of the fungus. The epidemic was relieved in about four months after treatment began.

DR. F. R. STURGIS, of New York, spoke of the value of shaving beyond the margin of the diseased area, followed by blistering and the subsequent application of parasiticides. This is limited to cases in which the area affected is small.

DR. CHARLES CARY, of Buffalo, read a paper on

CREMATION.

He said there is an absolute demand for cremation, especially in populous places. He gave the history of cremation, and the process of incineration, as practised in Buffalo, was described.

The Committee on Nominations then presented their report, and the following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—W. S. Ely, M.D., of Rochester.

Vice-President.—Solomon Van Etten, M.D., of Port Jervis.

Secretary.—Wm. Manlius Smith, M.D., of Syracuse.

Treasurer.—Charles H. Porter, M.D., of Albany.

Censors. *Southern District.*—J. S. Warren, M.D., of New York; Walter B. Chase, M.D., of Brooklyn; and E. T. Brush, M.D., of Westchester Co. *Eastern District.*—Joseph Lewi, M.D., of Albany; M. J. Burton, M.D., of Troy; and Leroy McLean, M.D., of Troy.

Middle District.—L. Griffin, M.D., of Binghamton; Robert Frazier, M.D., of Oneida Co.; and J. M. Goff,

M.D., of Cazenovia. *Western District.*—Theodore Dimon, M.D., of Auburn; M. S. Kittinger, M.D., of Lockport; and David Little, M.D., of Rochester.

For College of Medicine, Syracuse University.—H. Nims, M.D. of Onondaga Co.

Committee on Medical Ethics.—A. Jacobi, M.D., of New York; Arthur Mathewson, M.D., of Brooklyn; and J. Whitbeck, M.D., of Rochester.

Honorary Members.—Mr. Lawson Tait, of Birmingham, Eng.; Jos. G. Richardson, M.D., of Philadelphia; and Dr. Hansen Grut, of Copenhagen.

DR. FLOYD S. CREGO, of Buffalo, then read a paper on

MIGRAINE.

He pointed out the tendency of this affection to be hereditary. A study of its clinical history shows that it is rarely acquired after the age of twenty-five and that it declines in frequency after the age of fifty. It is equally common to both sexes. It bears a close relation to nervous affections and the bilious, gastric, and vasomotor theories of its origin are incorrect. The true theory, he believed to be that of nerve storm, allied to epilepsy. In its treatment he advocated the use, between the paroxysms, of minute doses of the bromides continued for months.

DR. F. W. HINKEL, of Buffalo, then reported a case of *Tubercular Ulceration of the Pharynx*, which ended fatally in a month.

DR. FRANCIS M. HAMLIN, of Auburn, read a paper on THE EMISSION OF SEMEN AS A MEANS OF DIAGNOSIS OF DEATH BY HANGING.

He held that this is more constantly present than is generally supposed; and that when there is no external appearance of semen, pressure upon the urethra will cause its appearance. He thought it possible that this may occur in cases of sudden death from other causes; but to establish this point further observations are required. He recommended the following method for discovering seminal stains on cotton cloth: Put two drops of water on a glass slide, and then lay on the water a small piece of the muslin containing the supposed stain; fray out the ends and let it remain for five minutes; then examine the slide under the microscope. If the stain be on woollen cloth, shave off a portion of the stain, and treat the specimen thus obtained in the same way.

After a vote of thanks to the President and other officers, and to the committees, the Society adjourned, to meet in Albany, on the first Tuesday in February, in 1887.

THE PHILADELPHIA NEUROLOGICAL SOCIETY.

Stated Meeting, November 28, 1885.

THE PRESIDENT, S. WEIR MITCHELL, M.D., IN THE CHAIR.

DRS. CHARLES K. MILLS and JAMES HENDRIE LLOYD read

NOTES ON THE DIAGNOSIS OF SPINAL TUMOR.

The subjects of general and differential diagnosis of spinal tumors were alone considered; that of local diagnosis—*i. e.*, of position of the growth at different levels of the spinal axis—was deferred for another paper. The

conclusions were based on a study of fifty cases, three of which were personal observations, and the remainder were collected from American, English, French, and German literature. The general diagnosis can be made from a certain train of symptoms. These are of two classes: (1) Those which are directly indicative of such a lesion; (2) Those which are corroborative. The facts which point directly to a growth within the canal are: History of a constitutional or other cause, as of syphilis, cancer, tuberculosis, or traumatism. The onset and development are gradual and of a peculiar character. The first symptoms are those of an irritative lesion. This is probably due to the fact that tumors usually involve the membranes, as demonstrated by the cases studied. Pain in the back or limbs is usually, but not always, present. The *sensory phenomena*, such as hyperesthesia, anesthesia, and paraesthesia, come on with more or less rapidity, with oscillating and irregular manifestations. *Motor symptoms*, such as paresis, spasm (tonic or clonic), contracture, tremor, ataxia, also manifest themselves in a similar vacillating manner. Exaggerated *reflexes* present themselves in most cases. *Trophic and vaso-motor disturbances* develop as the lesion progresses. These are such as wasting, ischaemia, oedema, and decubitus. *Visceral disorders*, such as paralysis of the bladder or rectum, or of their sphincters, and disorders of the heart and respiration, are, sooner or later, marked symptoms. Vomiting, gastric and intestinal disorders are present in a limited number of cases. Mental disorders are present in only a very limited number of cases of tumors high in the spinal axis, and are not of diagnostic importance. Briefly stated, the phenomena which point with comparative certainty to the existence of spinal tumors are symptoms of meningeal irritation gradually increasing, and symptoms of slow compression of the cord.

The data in the cases studied were somewhat meagre as to duration. The usual duration is from six months to three years.

It may be noted that fever was present at some stage in a considerable percentage of cases, but was so irregular as not to be of much diagnostic value.

The differential diagnosis of spinal tumors was considered in reference to the following affections: Spinal congestion, hemorrhage, meningitis, caries, traumatisms, sclerosis, aneurisms, neuritis, metallic and infectious disorders, and hysteria.

Spinal tumors are of constitutional or special origin, as syphilis, cancer, tuberculosis, etc.

Onset is gradual and irregular. Duration is comparatively long.

Progress is gradual, by irregular advances, toward a fatal termination.

Symptoms are inclined to be irregular, *i. e.*, unilateral or local; later, bilateral. Special symptoms, as paralysis, spasm, sensory and visceral disorders, irregular as to time.

Decubitus and trophic changes are common late.

Reactions of degeneration are often present.

In *spinal congestion*, constitutional cause not present.

Onset is usually sudden and after exposure. Duration is short, from a few days to four months.

Disease is stationary, then retrogression of symptoms toward recovery occurs.

Symptoms are more uniformly bilateral; motor and other symptoms develop about same time.

Decubitus is rare.

Reactions of degeneration are not usually present.

In *spinal hemorrhage*, there is no special history, or history of cardiac or vascular degeneration.

Onset is sudden.

Progress is more regular.

The first symptoms persist, and secondary degenerations follow, and differ according to extent and location of lesion, but are more likely to be uniformly bilateral.

In *meningitis*, the symptoms of localized compression are absent. The girdle symptom is absent. The affection is sometimes curable.

Reactions of degeneration are absent.

In *caries*, deformity is rarely absent. Rigidity of the muscles of back is a very important symptom.

In *traumatism*, there is usually a history. The symptoms are those of caries, myelitis, meningitis, or combinations of these, according to the character of case.

In *sclerosis*, the symptoms are usually of progressive systemic affections. Compression symptoms are absent.

Duration is longer.

Progress is gradual, and more regular.

Aneurisms are only to be distinguished when extra-spinal, causing erosion and compression.

In *neuritis*, there are irregular sensory, motor, and reflex disturbances; compression symptoms and visceral disorders are absent. It is curable.

In *metallic and infectious disorders*, a history of definite causation is present. In metallic disorders there may be special characteristic signs, such as lead line, etc.

In *hysteria*, a precedent hysterical history is usual.

Onset is often sudden. An emotional element is present. The symptoms are bilateral. Trophic changes are absent. No reactions of degeneration are present.

DR. E. N. BRUSH presented

THE BRAIN AND SPINAL CORD REMOVED THAT DAY FROM A CASE OF GENERAL PARESIS.

The case was an interesting one in connection with the question of the association of the physical and mental symptoms of paresis. In this instance physical symptoms preceded the mental by some months. In the winter of 1883-84 the patient was discovered by his physician to be ataxic; symptoms of posterior spinal sclerosis increased, and in January were associated with some mental disturbance. The patient was irritable and forgetful, but in a general way complacent. He thought his business was unusually successful, and that he possessed remarkable ability to transact business affairs. He was easily confused, and in attempting to make a short journey alone over a route with which he was perfectly familiar lost his way, and found himself several miles from his home on the wrong train.

His mental disturbance became more aggravated, and at last it became necessary to place him in a hospital. He was first placed in a private institution in a neighboring State, but there—doubtless after a slight epileptiform seizure—became so much disturbed that his removal was requested. In August last he was admitted to the Insane Department of the Pennsylvania Hospital.

On admission his mind was markedly impaired. He was complacent, quietly submitted to suggestion, and was apparently demented. There were considerable disturbance of speech, marked tremor of tongue and

lips and of upper extremities. Patellar tendon reflex abolished; pupils contracted to pinpoints and not responsive to light; Argyll-Robertson symptom was present; gait ataxic.

During his time in the Hospital the patient had three epileptiform seizures, such as are met with in cases of paresis. From these he readily recovered, but with increased impairment of mental and physical powers. After two of the seizures he was aphasic for some hours.

At eight o'clock on the morning of the day of his death, the patient had a slight vertiginous attack, followed by loss of power in arms and legs to a great degree, and disturbance of the power of coördination to such an extent that he could not, except after repeated trial, direct his hand to grasp an article held up before him. He protruded his tongue, opened and closed his eyes, and did other simple things upon direction; but to everything responded "yes," and did not seem able to articulate anything else.

At 3.30 P. M. the nurse's attention was attracted by the dusky appearance of his face, which had previously been pale.

The patient was seen at once by Dr. Brush, who found his face almost cyanotic, eyes injected, pupils closely contracted. In a few minutes he had a severe convulsion. At this time his temperature was $102\frac{3}{4}$ ° F. The convulsion continued, and at 4.15 the temperature was $108\frac{1}{2}$ ° F. Death occurred at 5.45. The temperature was then $107\frac{1}{2}$ °, and the body was bathed in perspiration. An hour after death the temperature of the body was 107 ° F. Post-mortem rigidity came on rapidly, and at eight o'clock was very pronounced.

Examination, sixteen hours after death: The conditions found were but briefly referred to, as the speaker intends to report this and some other cases more in detail to the Society.

The skull, especially in the temporal region, was quite thin; the dura was strongly adherent to the skull, and along the median fissure to the arachnoid pia; the arachnoid was thickened and opaque over the frontal and temporal convolutions, and along the Sylvian fissures; the pia in these locations was intimately connected with the cortex, and could not be separated without tearing it or the cortex cerebri. The sections made through the brain showed marked sclerosis; indeed, sections made through the anterior convolutions gave considerable resistance to the knife. The cord in the middle dorsal region was much injected.

NEWS ITEMS.

WILLIAM LAMBERT RICHARDSON, M.D., has been appointed to the Chair of Obstetrics in the Harvard Medical School.

THE OFFICERS OF THE CONGRESS.—*The Berliner klinische Wochenschrift*, in its issue of January 14, 1886, publishes the new list of officers for the Congress, and adds: "We miss many names of high repute in Germany."

THE NEW CONGRESSIONAL DIRECTORY gives the names of the physicians who are members of the present House of Representatives. The list comprises Drs. W.

H. Cole and F. T. Shaw, of Maryland; Drs. I. M. Evans and L. E. Atkinson, of Pennsylvania; Dr. W. H. Ellsberry, of Ohio; Dr. John Swinburne, of New York; Dr. R. T. Davis, of Massachusetts; Dr. A. M. Dockery, of Missouri; and Dr. J. H. Gallinger, of New Hampshire.—*Maryland Medical Journal*, Jan. 30, 1886.

PHILADELPHIA CLINICAL SOCIETY.—At the annual meeting of this Society, held January 22, 1886, the following officers were elected for the ensuing year:

President.—Dr. John B. Roberts.

Vice-Presidents.—Dr. Clara Marshall, and Dr. Daniel Longaker.

Recording Secretary.—Dr. J. G. Heilman.

Treasurer.—Dr. L. Brewer Hall.

COCAINE A DANGEROUS DRUG.—A bill is being prepared by the New York County Medical Society asking the State Legislature to include cocaine in the list of drugs forbidden to be sold excepting on physicians' prescriptions. It is said that in New York many drug stores sell a paste made of coca leaves and lime, forming a cud similar to that used by the Peruvians as a stimulant. These preparations are in great demand.—*Southern Medical Record*, January 0, 1886.

HYDROPHOBIA.—The Secretary of the Antivivisection League of England argues, in a letter to M. Pasteur, that cauterization removes all danger of hydrophobia. Her son once, and she herself five or six times, have thus escaped the malady, and both offer to be bitten by any mad animal in M. Pasteur's laboratory, on the condition of being allowed to treat the wounds themselves.—*Amer. Pract. and News*, Jan. 23, 1886.

OBITUARY RECORD.—Died at Danville, Pa., on January 19th, after a brief illness, ALONZO AMERMAN, M.D., in the thirty-sixth year of his age.

NOTES AND QUERIES.

ERRATUM.

In our issue of January 30, page 139, 12th line from bottom of second column, for "lessened *invariability*" read "lessened *variability*."

HYDROCHLORATE OF COCAINE IN STRICTURE.

NOT having seen any published account of the successful use of this valuable drug in stricture, I am able to report its efficiency in some cases at least. In a recent case where it was necessary to catheterize daily, and where a small instrument could not be passed on account of a painful stricture not far from the meatus, a few drops of a four per cent. solution of cocaine, applied by means of a common glass dropper, rendered the passing of the catheter easy and *painless* without systemic effect.

Respectfully,
FREDONIA, PA., January 29, 1886.

F. G. BYLES.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JANUARY 26 TO FEBRUARY 1, 1886.

SUMMERS, JOHN E., *Colonel and Surgeon*.—Retired from active service, by operation of law, January 24, 1886.—S. O. 20, A. G. O., January 25, 1886.

WATERS, WM. E., *Major and Surgeon*.—Granted leave of absence for one month and fifteen days.—S. O. 5, *Division of the Atlantic*, January 23, 1886.

VICKERY, RICHARD S., *Major and Surgeon*.—Assigned to duty in connection with the Army and Navy Hospital, Hot Springs, Ark.—S. O. 24, A. G. O., January 29, 1886.

BANISTER, J. M., *Assistant Surgeon*.—Ordered for temporary duty at Fort Warren, Mass.—S. O. 16, *Department of the East*, January 23, 1886.